



INDOXACARB GROUP 22A INSECTICIDE

PULL HERE TO OPEN

Advion®

Fire Ant Bait

syngenta®

Insecticide

For control of imported fire ants, bigheaded ants, pavement ants, and turfgrass ants on lawns, recreational areas, golf courses and fenced pastures grazed by horses and other companion animals

For control of imported fire ants in commercial nursery production of field and container-grown ornamentals and non-bearing fruit and nut trees and turf grass sod on sod farms

Active Ingredient:

Indoxacarb*: 0.045%

Other Ingredients: 99.955%

Total: 100.000%

Advion® Fire Ant Bait is a ready-to-use granular bait containing 0.00045 lb indoxacarb per lb product.

*CAS No. 173584-44-6

KEEP OUT OF REACH OF CHILDREN.

**CAUTION/
PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 100-1481 EPA Est. 39578-TX-1

Product of USA

SCP 1481A-L1E 0420 4123207

2 pounds

Net Contents



TABLE OF CONTENTS

1.0 FIRST AID

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards to Humans and Domestic Animals

2.2 Personal Protective Equipment (PPE)

2.2.1 User Safety Requirements

2.2.2 User Safety Recommendations

2.3 Environmental Hazards

DIRECTIONS FOR USE

3.0 PRODUCT INFORMATION

3.1 INSECT RESISTANCE MANAGEMENT

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

4.2 Application Equipment

5.0 RESTRICTIONS AND PRECAUTIONS

5.1 Use Restrictions

6.0 USE DIRECTIONS

6.1 Lawns, Recreational Areas, Golf Courses, and Non-crop/Non-grazed Areas

6.2 Commercial Nurseries and Sod Farms

7.0 STORAGE AND DISPOSAL

8.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

1.0 FIRST AID

FIRST AID
Have the product container or label with you when calling a poison control center or doctor or going for treatment.
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards to Humans and Domestic Animals

CAUTION

2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

2.2.1 USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

2.2.2 USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

2.3 Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is likely to occur within 24 hours. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Do not apply to any impervious surfaces which may contact or lead directly to surface water, storm drains, or urban runoff conveyance systems (gutters). Sweeping any product that lands on an impervious surface back onto pervious surfaces will prevent runoff to water bodies or drainage systems. Cover, incorporate or clean up granules that are spilled.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms (sod farms included), forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment, restricted-entry interval, and notification to workers (as applicable).

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- Coveralls
- Chemical resistant gloves (made of any waterproof material)
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides, 40 CFR part 170. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter the treated area until the application is complete.

3.0 PRODUCT INFORMATION

Advion Fire Ant Bait may be applied to control imported fire ants, bigheaded ants, pavement ants and turfgrass ants in: residential lawns and landscaped areas; commercial properties; institutional sites; sports and recreational turf; non-agricultural areas; and non-cropped areas.

Advion Fire Ant Bait may be applied to control imported fire ants, bigheaded ants, pavement ants and turfgrass ants in fenced pastures if grazed **only** by companion animals (i.e., animals not raised for production of meat or milk).

Advion Fire Ant Bait also may be applied to control imported fire ants in commercial nursery production of field- and container grown-ornamentals and non-bearing fruit and nut trees; and commercial production of turf grass sod on sod farms.

Refer to the Use Directions table in **Section 6.0** for specific treatment site examples where this product may be used to control listed pests.

3.1 INSECT RESISTANCE MANAGEMENT

INDOXACARB	GROUP	22A	INSECTICIDE
------------	-------	-----	-------------

For resistance management, Advion Fire Ant Bait contains a Group 22A insecticide. Any insect population may contain individuals naturally resistant to Advion Fire Ant Bait and other Group 22A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same treated areas. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Advion Fire Ant Bait or other Group 22A insecticides with different groups that control the same pests.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological, and other chemical control practices.

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

Contact your local Syngenta representative, retailer, or extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area. For further information or to report suspected resistance contact Syngenta at 1-866-SYNGENT(A) (866-796-4368). Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

Broadcast or individual mound treatments are permitted by ground application as specified in **Section 6.0**.

4.2 Application Equipment

- Apply with broadcast equipment capable of applying 1.5 pounds of Advion Fire Ant Bait per acre. Calibrate equipment before application.
- Use appropriate measuring utensils for individual mound treatments. Keep utensils used for measuring pesticides away from children.

5.0 RESTRICTIONS AND PRECAUTIONS

5.1 Use Restrictions

- **DO NOT** allow unprotected workers or other persons or pets in treated area during application.
- **DO NOT** apply product except on the sites and for the pests at the indicated rates and limitations specified in **Sections 6.0** of this label.
- **DO NOT** use kitchen utensils for measuring. Keep measuring utensils with pest control pesticides away from children.
- **DO NOT** allow livestock or domestic animals to consume the bait.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply in combination with other pesticides, fertilizers, and other biologically active materials as compatibility studies have not been completed.
- **DO NOT** formulate this product into other end-use products.
- **DO NOT** exceed 6 total pounds of product applied per acre per year (equal to 0.0027 pounds of active ingredient per acre per year).
- Not approved for use on bigheaded ants, pavement ants, and turfgrass ants in California.
- For fields to which applications of Advion Fire Ant Bait will be made, construct a vegetative filter strip if one does not already exist. Existing and new filter strips must be, at a minimum, 10-foot-wide and composed of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds). Vegetative filter strips must be maintained to optimize their utility. Only apply products containing indoxacarb onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

6.0 USE DIRECTIONS

6.1 Lawns, Recreational Areas, Golf Courses, and Non-crop/Non-grazed Areas

Use Sites			
Home lawns Fenced pastures Golf courses Athletic field and recreational turf Non-grazed and noncrop areas Parks and picnic areas Cemeteries Uncultivated non-agricultural areas, including: airports roadsides highway rights-of-way utility rights-of-way campgrounds industrial sites		Institutional sites defined as areas around properties or facilities providing a service to public or private organizations including, but not limited to: hospitals and nursing homes schools colleges and universities museums libraries sport facilities office buildings	
Target Pest	Rate	Application Timing	Use Directions
Imported fire ants - <i>Solenopsis</i> spp. Bigheaded ants* <i>Pheidole megacephala</i> Pavement ants* <i>Tetramorium caespitum</i> Turfgrass ants* <i>Lasius neoniger</i>	Broadcast Treatment: 1.5 lb/A	Apply at the first sign of imported fire ant, bigheaded ant, pavement ant or turfgrass ant activity. Applications may be made at any time of the day, but are more effective when ants are actively foraging, usually when the soil surface temperature is above 60° F. Up to 4 applications of Advion Fire Ant Bait may be applied per year, generally at 12-16 week intervals.	Broadcast Treatment: Make application with broadcast equipment capable of applying 1.5 pounds of product per acre.
	Individual Mound Treatment: 4 level tablespoons (1/2 oz) per mound		Individual Mound Treatment: Uniformly distribute the product 3-4 feet around the mound. Do not disturb the mound. Do not apply to tops of mound.

Precautions:

- Rainfall or irrigation within 2 to 3 hours after application may reduce effectiveness and a repeat application within 7 days may be necessary to achieve the desired level of control.
- Do not apply if the area to be treated is wet with dew, irrigation or rainfall.

USE RESTRICTIONS

1. Refer to **Section 5.1** for additional product use restrictions.
2. **Maximum Single Application Rate:** 1.5 lb/A/application (0.00068 lb ai/A of indoxacarb-containing products as a bait formulation)
3. **Minimum Application Interval:** 12 weeks under typical use conditions (7 days when a rainfall or irrigation has occurred within 2-3 hours of a treatment)
4. **Maximum Annual Rate:** 6 lb/A/year (0.0027 lb ai/A of indoxacarb-containing products as a bait formulation)

* Not approved for use on this species in CA.

6.2 Commercial Nurseries and Sod Farms

Use Sites			
Ornamental plant nurseries (field grown and container grown plants and non-bearing fruit and nut trees)		Sod farms	
Target Pest	Rate	Application Timing	Use Directions
Imported fire ants - <i>Solenopsis</i> spp.	Broadcast Treatment: 1.5 lb/A	Apply at the first sign of imported fire ant activity. Applications may be made at any time of the day, but are more effective when ants are actively foraging, usually when the soil surface temperature is above 60° F. Retreat after 12-16 weeks if needed.	Broadcast Treatment: Make application with broadcast equipment capable of applying 1.5 pounds of product per acre.
	Individual Mound Treatment: 4 level tablespoons (1/2 oz) per mound		Individual Mound Treatment: Uniformly distribute the product 3-4 feet around the mound. Do not disturb the mound. Do not apply to tops of mound.
<p>Precautions:</p> <ul style="list-style-type: none"> • Rainfall or irrigation within 2 to 3 hours after application may reduce effectiveness and a repeat application within 7 days may be necessary to achieve the desired level of control. • Do not apply if the area to be treated is wet with dew, irrigation or rainfall. 			
USE RESTRICTIONS			
<ol style="list-style-type: none"> 1. Refer to Section 5.1 for additional product use restrictions. 2. Maximum Single Application Rate: 1.5 lb/A/application (0.00068 lb ai/A of indoxacarb-containing products as a bait formulation) 3. Minimum Application Interval: 12 weeks under typical use conditions (7 days when a rainfall or irrigation has occurred within 2-3 hours of a treatment) 4. Maximum Annual Rate: 6 lb/A/year (0.0027 lb ai/A of indoxacarb-containing products as a bait formulation) 			

7.0 STORAGE AND DISPOSAL

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

Pesticide Disposal

Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling [bags]

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [jugs]

Non-refillable container. Do not reuse or refill this container. Completely empty jug into application equipment. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

8.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.



The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE)**

RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

Advion®, the ALLIANCE FRAME 
the Syngenta Logo and the PURPOSE ICON 
are Trademarks of a Syngenta Group Company

©2020 Syngenta

For non-emergency (e.g. current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1481A-L1E 0420

4123207



INDOXACARB GROUP 22A INSECTICIDE



Insecticide

For control of imported fire ants, bigheaded ants, pavement ants, and turfgrass ants on lawns, recreational areas, golf courses and fenced pastures grazed by horses and other companion animals

For control of imported fire ants in commercial nursery production of field and container-grown ornamentals and non-bearing fruit and nut trees and turf grass sod on sod farms

Active Ingredient:	
Indoxacarb*:	0.045%
Other Ingredients:	99.955%
Total:	100.000%

Advion® Fire Ant Bait is a ready-to-use granular bait containing 0.00045 lb indoxacarb per lb product. *CAS No. 173584-44-6

KEEP OUT OF REACH OF CHILDREN. CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 100-1481 EPA Est. 39578-TX-1 Product of USA

2 pounds

Net Contents

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

FIRST AID: Have the product container or label with you when calling a poison control center or doctor or going for treatment.

HOT LINE NUMBER: For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372.

Refer to Personal Protective Equipment (PPE), User Safety Requirements, and User Safety Recommendations inside booklet.

Environmental Hazards: This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is likely to occur within 24 hours. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Do not apply to any impervious surfaces which may contact or lead directly to surface water, storm drains, or urban runoff conveyance systems (gutters). Sweeping any product that lands on an impervious surface back onto pervious surfaces will prevent runoff to water bodies or drainage systems. Cover, incorporate or clean up granules that are spilled.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

Pesticide Disposal: Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

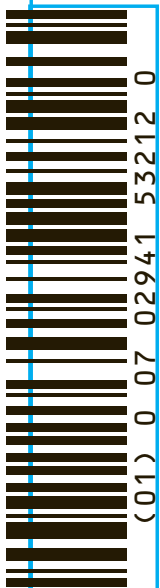
Container Handling: Non-refillable container. Do not reuse or refill this container. Completely empty jug into application equipment. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Advion® and the Syngenta Logo are Trademarks of a Syngenta Group Company

©2020 Syngenta

For non-emergency (e.g. current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300
SCP 1481A-L1E 0420
4123207



ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : ADVION FIRE ANT BAIT
Design code. : A20380A
Product Registration number : 100-1481

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC
Address : Post Office Box 18300
Greensboro NC 27419
United States of America (USA)
Telephone : 1 800 334 9481
Telefax : 1 336 632 2192
E-mail address : sds.requests@syngenta.com
Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide
Restrictions on use : General Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H361d Suspected of damaging the unborn child.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
diethylene glycol methylether	111-77-3	>= 0.1 - < 1
ethanol	64-17-5	>= 0.1 - < 1
indoxacarb	173584-44-6	0.045

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Take the victim into fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control center immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.
- Notes to physician : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

- Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.
- Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.
- Conditions for safe storage : No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of)	Control parameters / Permissible	Basis

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

		exposure)	concentration	
ethanol	64-17-5	STEL	1000 ppm	ACGIH
		TWA	1000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1000 ppm 1,900 mg/m3	OSHA P0

Engineering measures : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The breakthrough time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : No special protective equipment required.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Remove and wash contaminated clothing before re-use. Wear as appropriate:

Dust impervious protective suit

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek

ADVION FIRE ANT BAITVersion
1.1Revision Date:
05/11/2022SDS Number:
S1496027303

This version replaces all previous versions.

appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	granular
Color	:	light yellow
Odor	:	oily, weak
Odor Threshold	:	No data available
pH	:	7.7 Concentration: 1 % w/v
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	Method: Pensky-Martens o.c. does not flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Density	:	0.25 - 0.35 g/cm ³
Solubility(ies) Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Particle size	:	No data available

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : No decomposition if used as directed.
Incompatible materials : None known.
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity**Product:**

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Components:**indoxacarb:**

Acute oral toxicity : LD50 (Rat): 268 mg/kg
Acute inhalation toxicity : LC50 (Rat): > 5.5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation**Product:**

Species : Rabbit
Result : No skin irritation

Components:**indoxacarb:**

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : No eye irritation

Components:

indoxacarb:

Result : No eye irritation

Respiratory or skin sensitization

Product:

Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

Components:

indoxacarb:

Result : May cause sensitization by skin contact.

Germ cell mutagenicity

Components:

indoxacarb:

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

ethanol:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

indoxacarb:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

IARC

Group 1: Carcinogenic to humans
ethanol

64-17-5

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

Reproductive toxicity**Components:****diethylene glycol methylether:**

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

indoxacarb:

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT-single exposure**Components:****indoxacarb:**

Target Organs : Central nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 2.

STOT-repeated exposure**Components:****indoxacarb:**

Target Organs : Blood, Nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna Straus (Water flea)): > 69 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 53 mg/l
Exposure time: 96 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 14 mg/l
Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)): 1.49 mg/l
Exposure time: 96 h

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

Components:

indoxacarb:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.65 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.6 mg/l
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 (Lemna gibba (gibbous duckweed)): > 84.3 mg/l
Exposure time: 14 d
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.15 mg/l
Exposure time: 90 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.09 mg/l
Exposure time: 21 d

Persistence and degradability

Components:

diethylene glycol methylether:

- Biodegradability : Result: Readily biodegradable.

indoxacarb:

- Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Components:

indoxacarb:

- Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 950.3
Exposure time: 21 d

Mobility in soil

Components:

indoxacarb:

- Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Components:

diethylene glycol methylether:

- Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution

Keep away from children, domestic animals and pets.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Reproductive toxicity

ADVION FIRE ANT BAIT

Version 1.1 Revision Date: 05/11/2022 SDS Number: S1496027303 This version replaces all previous versions.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

The ingredients of this product are reported in the following inventories:

TSCA : On or in compliance with the active portion of the TSCA inventory

TSCA list

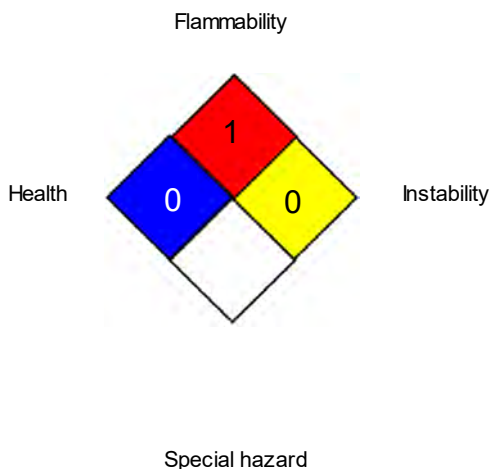
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
 NIOSH REL : USA. NIOSH Recommended Exposure Limits
 OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
 OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
 ACGIH / STEL : Short-term exposure limit
 NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
 OSHA P0 / TWA : 8-hour time weighted average
 OSHA Z-1 / TWA : 8-hour time weighted average

ADVION FIRE ANT BAIT

Version	Revision Date:	SDS Number:	This version replaces all previous versions.
1.1	05/11/2022	S1496027303	

AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 05/11/2022

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / Z8

AGNIQUE[®] MMF

MOSQUITO LARVICIDE & PUPICIDE

Monomolecular Surface Film for Control of Immature Mosquitoes and Midges

CAN BE USED IN: • Habitats Containing Birds, Fish, Pets and Wildlife
• Ponds • Pools • Ditches • Irrigation Water • Potable Water Containers
• Flood Water Areas • Other Areas Where Mosquitoes Breed and Develop
• Biodegradable • Spreads to Cover Hard to Reach Areas

STOPS MOSQUITO EMERGENCE



ACTIVE INGREDIENT

Poly (oxy-1,2-ethanediyl), α -(C16-20 branched and linear alkyl)- ω -hydroxy- 100%

EPA Reg. No. 7969-333

EPA Est. No. 53263-OH-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with plenty of water for 15 to 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

DO NOT allow storage containers to rust. Rust contaminants may clog spray nozzles. **DO NOT** allow product to freeze.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Nonrefillable container. DO NOT reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state or local authorities.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Intended to be used in governmental mosquito control program, by professional pest control operators, or in other mosquito or midge control operations.

APPLICATION DIRECTIONS

This product may be applied by both ground and aerial applications. To use, calculate the desired rate based on water surface area. The water depth is not a factor in rate determination. Spray the desired rate of **AGNIQUE[®] MMF Mosquito Larvicide & Pupicide** onto the surface of the water. No dilution is required and a fan spray is recommended. **AGNIQUE MMF** will spread to cover hard to access areas. For large areas with dense vegetation, apply in several locations to assist in the spreading action. **DO NOT** pour or inject a stream spray directly into water. **AGNIQUE MMF** is not visible on the surface of the water. Excess **AGNIQUE MMF** on the water surface will form a white globule.

Net Contents: 53 gallons
NVA 2012-24-401-0004

APPLICATION SITES

This product is for the control of immature mosquitoes and midges in areas where they breed and develop. This product may be used in habitats including potable water and irrigation waters, permanent and semi-permanent waters, irrigated croplands and pastures, and waters with outlets to natural water bodies. The following habitats provide examples of where the product can be applied but is not intended to be all inclusive.

Fresh and Brackish Water: Fresh water and salt marshes, ponds, lakes, storm water, drainage systems and retention & detention basins, roadside ditches, grassy swales, flooded fields and pastures, potable water containers,

reservoirs, irrigated croplands, temporary and semi-permanent woodland pools, tidal water, and other areas where water accumulates.

Residential Areas: Ponds, storm water basins, tree holes, rain barrels, landscape and ornamental ponds, tires, storm drains, stationary flower pots, pot holes, gutters, tarps, potable water containers and residential areas where water accumulates and provides ideal breeding habitats for mosquitoes or midges. **Not for Homeowner Use in the States of CA and NY.**

Polluted Waters: Sewage lagoons, percolation ponds, animal waste effluent lagoons, septic ditches, waste treatment facility areas, etc.

Application Rates	Application Rates	
	MOSQUITO HABITAT	MIDGE HABITAT
Fresh and Brackish Water*	0.2 to 1.0 gallons/acre* (2 to 10 liters/hectare)*	0.5 to 1.0 gallons/acre^ (5 to 10 liters/hectare)^
Polluted Waters**	0.35 to 1.0 gallons/acre** (3.5 to 10 liters/hectare)**	0.5 to 1.0 gallons/acre^ (5 to 10 liters/hectare)^

* Use the lower rate (0.2 gallons/acre) when only pupae control is desired and in sites with no emergent vegetation and low organic content.
 * Use higher rates when emergent or surface vegetation is present, due to the wicking action of the product. The more vegetation or the drier the vegetation, the higher the required rate.
 ** Use higher rates in polluted water habitats for effective control.
 ^ Reapply every two weeks during the midge season.

APPLICATION INFORMATION

Rate of Kill: The rate of kill when using **AGNIQUE® MMF Mosquito Larvicide & Pupicide** is dependent on the species, the life stage, the habitat and the temperature. Pupicidal action will typically result in 24 hours. Larvicidal action will usually result in 24 to 96 hours. If the film is present, control will be achieved.

Persistence: The **AGNIQUE MMF** surface film typically persists on the water's surface for 5 to 22 days. Polluted waters will cause more rapid degradation of the film. Higher application rates will prolong film life and extend the interval between retreatment.

Species: Mosquitoes and midges that require little or no surface contact for breathing will be affected by the product during the pupae and emerging adult life stages.

Wind: The high end of the dosage rate is recommended when spraying habitats where multi-directional winds of 10 mph (16 km/hr) or greater are expected to persist. While the film will be pushed by the winds, it will re-spread quickly once the winds have subsided. If persistent unidirectional winds of 10 mph (16 km/hr) or greater are expected, the displacement of the surface film may result in poor control.

Spray Tanks: Thoroughly clean and dry the spray system of contaminants such as petroleum oils, water, detergents and conventional toxicants prior to adding **AGNIQUE MMF**. Detergents will destroy the film-forming of **AGNIQUE MMF**; other contaminants (water and oil) can result in the formation of an unsprayable paste.

Dilution: **AGNIQUE MMF** is typically applied to the water's surface without dilution. However, if it is desired to spray higher volumes of liquid,

AGNIQUE MMF may be diluted using a high shear injection system that dilutes **AGNIQUE MMF** at the nozzle to a maximum of 10% in water. **DO NOT** add **AGNIQUE MMF** to water in nonagitated spray systems. Conventional bypass recirculation will not provide adequate agitation to effectively mix **AGNIQUE MMF** in water. **AGNIQUE MMF** may also be diluted in **AGNIQUE MMF Diluent, Eco-Ash A**, or another appropriate diluent. **AGNIQUE MMF** may be diluted 1 part **AGNIQUE MMF** to 4 parts or greater of diluents. Fill the spray tank or container with the desired amount of **AGNIQUE MMF Diluent, Eco-Ash A**, or another appropriate diluent, and then add the correct amount of **AGNIQUE MMF**. Agitate to ensure a homogeneous solution. When diluting with **AGNIQUE MMF Diluent, Eco-Ash A**, or another appropriate diluent, the use of metering pumps, injector systems or other mixing systems is optional.

Application rates based on two dilution options:

AGNIQUE MMF to Diluent	Application Rate of Diluted Product
1 part to 4 parts	1 to 5 gallons/acre
1 part to 9 parts	2 to 10 gallons/acre

When a different dilution rate is used, adjust the application rate accordingly. **DO NOT** use less than 4 parts diluents to 1 part **AGNIQUE MMF** because it may not form a stable, homogenous solution.

Expanding Waters: Significant expansion of the habitat's surface due to rain or tidal fluxes can be compensated for by using a dosage that is based on the largest expected surface area. This will ensure complete coverage, and eliminate the need for re-treatment of the flooded area.

CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product.

Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

PC309

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

EPA Reg. No. 7969-333

Revision date : 2011/09/19

Page: 1/7

Version: 1.0

(30536512/SDS_CPA_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Substance number: 000000497685

2. Hazards Identification

Emergency overview

CAUTION:
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: light yellow
Odour: product specific, faint odour

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Irritation / corrosion:

May cause moderate irritation to the skin. May cause moderate but temporary irritation to the eyes.

Potential environmental effects**Aquatic toxicity:**

Acutely harmful for fish. Acutely toxic for aquatic invertebrates.

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 2/7
(30536512/SDS_CPA_US/EN)

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
881022-11-3	100.0 %	Ethoxylated Alcohol

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Antidote:	No known specific antidote.
Treatment:	Treat symptomatically.

5. Fire-Fighting Measures

Flash point: 188 °C

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide,
If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 3/7
(30536512/SDS_CPA_US/EN)

6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 4/7
(30536512/SDS_CPA_US/EN)

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Odour:	product specific, faint odour
Colour:	light yellow
pH value:	approx. 6 - 8 (1 %(m))
Melting point:	< -30 °C
Boiling point:	> 300 °C
Density:	approx. 0.89 g/cm ³ (25 °C)
Solubility in water:	not soluble

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

Substances to avoid:

strong oxidizing agents, strong acids, bases

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 5/7
(30536512/SDS_CPA_US/EN)

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 20,000 mg/kg

Type of value: LD50

Species: mouse

Value: > 2,000 mg/kg

Inhalation:

Type of value: LC50

Species: rat

Value: > 29 mg/l

Dermal:

Type of value: LD50

Species: rabbit

Value: > 2,000 mg/kg

Irritation / corrosion

Skin:

Species: guinea pig

Result: Slightly irritating.

Species: rabbit

Result: non-irritant

Eye:

Species: rabbit

Result: non-irritant

Repeated dose toxicity

Experimental/calculated data:

dog oral unspecified 2 years

NOAEL: 1000 mg/kg/day

Genetic toxicity

Ames-test Salmonella typhimurium:negative

Carcinogenicity

Experimental/calculated data:

rat 500 mg/kg/day

Result: negative

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 6/7
(30536512/SDS_CPA_US/EN)

12. Ecological Information

Fish

Acute:

Lepomis macrochirus/LC50: 290 mg/l

Oncorhynchus mykiss/LC50: 98 mg/l

Aquatic invertebrates

Acute:

daphnia/LC50: 1.9 mg/l

Degradability / Persistence

Biological / Abiological Degradation

Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C

Degree of elimination: 30 - 46 % (28 d)

Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C

Degree of elimination: 41 - 66 % (42 d)

Test method: OECD Guideline 301 F

Degree of elimination: 79 - 82 % (28 d)

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / registration status not clarified

Crop Protection TSCA, US released / exempt

Safety Data Sheet

AGNIQUE MMF MOSQUITO LARVICIDE

Revision date : 2011/09/19
Version: 1.0

Page: 7/7
(30536512/SDS_CPA_US/EN)

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations

msds@basf.com

MSDS Prepared on: 2011/09/19

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

END OF DATA SHEET

AGNIQUE[®] MMF G PAK 35

MOSQUITO LARVICIDE & PUPICIDE

Granular Monomolecular Surface Film in a Ready-To-Use Water Soluble Pouch

CAN BE USED IN: Habitats Containing Birds, Fish, Pets and Wildlife • And Residential Areas Where Water Accumulates and Provides Ideal Breeding Habitats for Mosquitoes



PAK 35 is a Water Soluble Pouch Packed With MMF G

ACTIVE INGREDIENT :

Poly (oxy-1,2-ethanediyl), α -(C ₁₆₋₂₀ branched and linear alkyl)- ω -hydroxy	32.0%
INERT INGREDIENTS.....	68.0%
TOTAL.....	100.0%

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMAN AND DOMESTIC ANIMALS

CAUTION: Avoid contact with skin or clothing. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Avoid contact with eyes or clothing. Wear protective eyewear.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID (TREATMENT)

IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with plenty of water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. To be used in governmental mosquito control program, by professional pest control operators, by homeowners, or in other mosquito or midge control operations.

APPLICATION DIRECTIONS

This product may be applied by both ground and aerial applications. To use, calculate the desired rate based on water surface area. The water depth is not a factor in rate determination. Apply the desired rate of AGNIQUE[®] MMF G PAK 35 onto the surface of the water. The AGNIQUE[®] MMF G will spread to cover hard to access areas. For large areas with dense vegetation it is recommended that application is made in several locations to assist in the spreading action. AGNIQUE[®] MMF G PAK 35 is not visible on the surface of the water. Excess MMF G on the water surface will form a white globule.

APPLICATION SITES

This product is for the control of immature mosquitoes and midges in areas where they breed and develop. This product may be used in habitats including potable water and irrigation waters, permanent and semi-permanent waters, irrigated croplands and pastures, and waters with outlets to natural water bodies. The following habitats provide examples of where the product can be applied but is not intended to be all inclusive.

Fresh and Brackish Water: Fresh water and salt marshes, ponds, lakes, storm water, drainage systems and retention & detention basins, roadside ditches, grassy swales, flooded fields and pastures, potable water containers, reservoirs, irrigated croplands, temporary and semi-permanent woodland pools, tidal water, and other areas where water accumulates.

Residential Areas: Ponds, storm water basins, tree holes, rain barrels, landscape and ornamental ponds, tires, storm drains, stationary flower pots, pot holes, gutters, tarps, potable water containers and residential areas where water accumulates and provides ideal breeding habitats for mosquitoes or midges.

Polluted Waters: Sewage lagoons, percolation ponds, animal waste effluent lagoons, septic ditches, waste treatment facility areas, etc.

SPECIMEN LABEL

AGNIQUE[®] MMF G PAK 35

MOSQUITO LARVICIDE & PUPICIDE

Stop Mosquitoes
Before They Start



APPLICATION NOTES

Rate of Kill: The rate of kill when using AGNIQUE[®] MMF G PAK 35 is dependent on the species, the life stage, the habitat and the temperature. Pupicidal action will typically result in 24 hours. Larvicidal action will usually result in 24-96 hours. If the film is present, control will be achieved.

Persistence: The AGNIQUE[®] MMF G PAK 35 film typically persists on the water's surface for 5 to 22 days. Polluted waters will cause more rapid degradation of the film.

Species: Mosquitoes and midges that require little or no surface contact for breathing will be affected by the product during the pupae and emerging adult life stages.

Wind: While the film will be pushed by the winds, it will re-spread quickly once the winds have subsided. If persistent unidirectional winds of 10 mph (16km/hr) or greater are expected, the displacement of the surface film may result in poor control.

Expanding Waters: Significant expansion of the habitat's surface area due to rain or tidal fluxes can be compensated for by using a dosage that is based on the largest expected surface area. This will ensure complete coverage, and eliminate the need for re-treatment of the flooded area.

NOTICE

Cognis Corporation makes no warranty, express or implied of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks, storage or handling not in strict accordance with the label.

For information on this pesticide product (including health) concerns, medical emergencies or pesticide incidents, call the National Pesticide Telecommunication Network at 1-800-858-7378.

MOSQUITO HABITAT	Application Rate
Fresh and Brackish Water	1 AGNIQUE [®] MMF G PAK 35 will treat up to 350 sq ft of water surface area. For every additional 350 sq ft – apply 1 additional pouch.
Polluted Waters	1 AGNIQUE [®] MMF G PAK 35 will treat up to 160 sq ft of water surface area. For every additional 160 sq ft – apply 1 additional pouch.
MIDGE HABITAT	Application Rate [^]
Fresh and Polluted Waters	1 AGNIQUE [®] MMF G PAK 35 will treat up to 160 sq ft of water surface area. For every additional 160 sq ft – apply 1 additional pouch.

[^] Reapplication is recommended every two weeks during the midge season.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Avoid prolonged storage at temperatures above 35°C (95°F).

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill container. Offer for recycling if available or dispose of empty container in a sanitary landfill or by incineration.



Cognis Corporation

4900 Este Avenue
Cincinnati, OH 45232-1419
1-800-254-1029

EPA Reg. No. 53263-30

EPA Establishment No. 82979-IL-001

© 2011, Cognis Corporation

SPECIMEN LABEL

Material Safety Data Sheet

Page 1 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

1. Chemical product and company identification

Product name:

AGNIQUE MMF G PAK 35

Supplier

Cognis Corporation
5051 Estecreek Drive
Cincinnati, OH 45232-1446
Phone: +1 (866) 910-0598
Fax-no.: +1 (513) 482-3576

Emergency Information Chemtrec:

+1-800-424-9300

2. Composition / information on ingredients

General chemical description:

Mosquito Larvicide & Pupicide in Pellet Form

COMPONENT:	CAS-No.	CONCENTRATION (Wt. %):
Proprietary component(s)		68
Poly(oxy-1,2-ethanediyl), .alpha.-(C16-20 branched and linear alkyl)-.omega.-hydroxy	881022-11-3	32

3. Hazards identification

EMERGENCY OVERVIEW

Low hazard for usual industrial or commercial handling.

Delivery state:

pellets

State:

solid

Odor:

almost odourless

Color(s):

light brown

Material Safety Data Sheet

Page 2 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

Routes of entry:

Skin contact, Eye contact

Potential Health Acute Effects:

Inhalation:

May cause respiratory irritation.

Skin contact:

not irritating

Eye contact:

May cause eye irritation.

Ingestion:

May be harmful if swallowed in large quantities.

Potential Chronic Health Effects:

None known

4. First aid measures

After inhalation:

Remove person from dust-contaminated zone, seek medical advice if necessary.

After skin contact:

Wash thoroughly with soap and water.

After eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

After ingestion:

Do not induce vomiting.

Seek medical advice immediately and show this container or label.

5. Fire fighting measures

Flash point:

365 °F (185.00 °C)

Autoignition temperature:

Not determined

Material Safety Data Sheet

Page 3 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

Flammable/Explosive limits:

Lower limits:

No data available.

Upper limits:

No data available.

Suitable extinguishing media:

water spray jet

Carbon dioxide.

Foam.

Special protection equipment for firefighters:

Wear self-contained breathing apparatus.

Wear full protective clothing.

Unusual fire or explosion hazards:

Avoid creating explosive concentrations of dust.

Hazardous combustion products:

Carbon dioxide., Sulphur oxides

6. Accidental release measures

General information:

Avoid open flames and sources of ignition.

Clean up spills immediately.

Personal precautions:

dust mask

Avoid dust formation.

Process for cleaning and take-up:

Pick up spilled material and containerize for recovery or disposal.

Vacuum or sweep area to remove residues.

7. Handling and storage

Handling:

Handling advice:

Avoid dust formation.

Ensure adequate ventilation.

Avoid naked flames, sparking and sources of ignition.

Material Safety Data Sheet

Page 4 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

Storage:

General storage advice:

Avoid container damage while handling and storing.
Store only in the original container.

8. Exposure controls / personal protection

Indication for system design:

Ensure adequate ventilation.

Material Safety Data Sheet

AGNIQUE MMF G PAK 35

Components with specific control parameters for workplace:

Valid for USA

Name on list	Basis	Type	Value	Category	Remarks
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, INHALABLE PARTICLES	ACGIH	Time Weighted Average (TWA).	10 mg/m ³		
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, RESPIRABLE PARTICLES	ACGIH	Time Weighted Average (TWA).	3 mg/m ³		
PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION	OSHA Z1	Permissible Exposure Limit (PEL)	5 mg/m ³		All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST	OSHA Z1	Permissible Exposure Limit (PEL)	15 mg/m ³		All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

Material Safety Data Sheet

AGNIQUE MMF G PAK 35

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION	OSHA Z1A	Time Weighted Average (TWA).	5 mg/m ³		
PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST	OSHA Z1A	Time Weighted Average (TWA).	15 mg/m ³		
INERT OR NUISANCE DUST, RESPIRABLE FRACTION	Z3	Time Weighted Average (TWA).	15 others	millions of particles per cubic foot of air.	
INERT OR NUISANCE DUST, TOTAL DUST	Z3	Time Weighted Average (TWA).	50 others	millions of particles per cubic foot of air.	
INERT OR NUISANCE DUST, RESPIRABLE FRACTION	Z3	Time Weighted Average (TWA).	5 mg/m ³		
INERT OR NUISANCE DUST, TOTAL DUST	Z3	Time Weighted Average (TWA).	15 mg/m ³		
PARTICULATES NOT OTHERWISE REGULATED, RESPIRABLE FRACTION	US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	5 mg/m ³		
PARTICULATES NOT OTHERWISE REGULATED, TOTAL DUST	US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	10 mg/m ³		

Personal protection measures:

Respiratory protection:

Nuisance dust mask if use causes dusting.

Hand protection:

Appropriate chemical resistant gloves.

Eye protection:

Safety glasses with side shields.

Skin protection:

Wear suitable protective clothing.

9. Physical and chemical properties

General description:

Delivery state:	pellets
State:	solid
Odor:	almost odourless
Color(s):	light brown

Designation

Solubility in Water

Value

Soluble

Method

no information

Material Safety Data Sheet

Page 7 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

10. Stability and reactivity

Stability:

Conditions to avoid:

Keep away from sources of ignition and naked flames.

Dangerous decomposition products:

Carbon dioxide.

Sulphur oxides

Decomposition advices:

No decomposition if used according to specifications.

Reactivity:

Materials to avoid:

Strong Acids

Strong Alkalies

Strong Oxidizers

Hazardous polymerization:

Will not occur

11. Toxicological information

General toxicological information:

No toxicity information available or testing conducted on this product.

12. Ecological information

General ecological information:

no data available

Material Safety Data Sheet

Page 8 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

13. Disposal considerations

Waste disposal of product:

All recovered material should be packaged, labeled, transported, and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices.

Reclaim where possible.

14. Transport information

General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR, CFR and TDG.

The transport information provided represents the regulatory transport classification of the product without consideration to packaging, quantity, or modal restrictions and exceptions. It is the user's responsibility to determine the appropriate packaging and modal requirements and/or limitations for the product quantity being shipped.

15. Regulatory information

TSCA Inventory Status:	This product is excluded pursuant to Section 3(2)(B)(ii) of the Toxic Substances Control Act [FIFRA Exclusion].		
SARA 311/312 Hazard Categories:	None		
TSCA 12(b) Components:	none		
SARA 313 Toxic Chemicals:	none		
SARA 302 Extremely Hazardous Substances:	US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)		
	ETHYLENE OXIDE	CAS: 75-21-8	3PPM
CERCLA Hazardous Chemicals:	US. EPA CERCLA Hazardous Substances (40 CFR 302)		
	ETHYLENE OXIDE	CAS: 75-21-8	3PPM
	1,4-DIETHYLENEOXIDE	CAS: 123-91-1	33PPM

Material Safety Data Sheet

Page 9 of 9

SDS no. : 292753

AGNIQUE MMF G PAK 35

Revision: 03/19/2009

printing date: 04/15/2011

California Proposition 65:

This product contains the following chemical/s known to the State of California to cause cancer and/or birth defects or other reproductive harm.

ETHYLENE OXIDE	CAS: 75-21-8	3PPM
1,4-DIOXANE	CAS: 123-91-1	33PPM

16. Other information

NFPA Rating (US)	Value
Health	1
Fire	1
Reactivity	0
Special Hazard	

HMIS Rating (US)	Value
Health	1
Flammability	1
Reactivity	0

All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, express or implied, is being made as to the effects of such use, the results obtained, or the safety and toxicity of the product nor is there any assumed liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.



Altosid[®] BRIQUETS



A SUSTAINED RELEASE MOSQUITO GROWTH REGULATOR TO PREVENT ADULT MOSQUITO EMERGENCE (INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (Dry Weight Basis)
(CAS #65733-16-6) 8.62%

OTHER INGREDIENTS: 91.38%
Total 100.00%

This product contains water, therefore the weight of the briquet and percent by weight of active ingredient will vary with hydration. The Ingredient Statement is expressed on a dry weight basis.

EPA Reg. No. 2724-375 EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
AND DOMESTIC ANIMALS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

FIRST AID

Call a poison control center or doctor for treatment advice.

- | | |
|-------------------|---|
| If in eyes | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. |
|-------------------|---|

FIRST AID (CONTINUED)

- | | |
|-------------------------------|---|
| If on skin or clothing | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. |
|-------------------------------|---|

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Note to User: Do not remove **ALTOSID[®] Briquets** from container except for immediate use.

Because of the unique mode of action of **ALTOSID[®] Briquets**, users must be familiar with special techniques for accurate evaluation of treatments. See Application Rates and Intervals section of this label or consult local Mosquito Abatement Agency. Effective use of **ALTOSID[®] Briquets** in sites subjected to periodic heavy flow of water requires careful attention to briquet placement and to the possible need for retreatment. Use of the product in storm drains, waste treatment and settling ponds, and similar systems should therefore be limited to experienced pesticide applicators, such as personnel of Mosquito Abatement Districts and Public Health Agencies.

Introduction: The **ALTOSID[®] Briquet** is a formulation designed to release effective levels of **ALTOSID[®] Insect Growth Regulator** up to 30 days under typical environmental conditions. Release of **ALTOSID[®] Insect Growth Regulator** is effected by dissolution of the **ALTOSID[®] Briquet**. If briquets become covered by obstructions such as debris, vegetation, and loose

sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the briquet thus reducing the residual life of the briquet. Inspect areas of water flow to determine appropriate retreatment intervals. To assure positive results, place **ALTOSID® Briquets** where they will not be swept away by flushing action. **ALTOSID® Briquets** prevent the emergence of adult mosquitoes including *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes*, *Ochlerotatus*, and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

APPLICATION TIMING

Apply **ALTOSID® Briquets** at the beginning of the mosquito season. **ALTOSID® Briquets** provide up to 30 days residual control. Continue treatment through the last brood of the season. Apply at any stage of larval development. **ALTOSID® Briquets** may be applied as a pre-flood treatment prior to wetting events. **ALTOSID® Briquets** will be unaffected in dry down situations and will begin working again during subsequent wetting events until the briquet is exhausted.

NOTE: This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION SITES

ALTOSID® Briquets are designed to control mosquitoes in small bodies of water. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water-hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

APPLICATION RATES AND INTERVALS

For mosquito control in non-(or low-) flow, shallow depressions (up to two ft in depth), treat on the basis of surface area placing one **ALTOSID® Briquet** per 100 sq ft. For applications in storm water drainage areas, sewers, and catch basins: Place one **ALTOSID® Briquet** into each catch basin. Follow the chart below to determine the number of **ALTOSID® Briquets** to use in large catch basins. Place one **ALTOSID® Briquet** per 100 sq ft of surface area up to two feet deep for storm water drainage areas. Use one additional **ALTOSID® Briquet** per two feet of water depth in areas deeper than two feet.

ALTOSID® BRIQUET APPLICATION CHART		
Number of Briquets	Catch Basin Size	Water Depth (Feet)
1	0-1,500	0-2
2	1,500-3,000	2-4
3	3,000-4,500	4-6
4	4,500-6,000	6-8

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Storage:** Store in cool, dry place. **Pesticide Disposal:** Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag and box in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

To the fullest extent permitted by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and handling of this material when such use and handling are contrary to label instructions.

Always read the label before using this product.

For more information call **1-800-248-7763**.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



ALTOSID and ZOECON are registered trademarks of Wellmark International.

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Zoecon Altosid Briquets
 Synonyms : EPA Reg. No.: 2724-375, 37060F, 37090C, ProLink Briquets

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
 Restrictions on use : Avoid contact with eyes and clothing. Do not use or store near heat or open flame. Keep out of reach of children.

1.3. Supplier

Wellmark International
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.centralmosquitocontrol.com

1.4. Emergency telephone number

Emergency number : 1-888-914-2082
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 2B	Causes eye irritation
Carcinogenicity Category 1A	May cause cancer
Combustible Dust	May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS08

Signal word (GHS US) : Danger

Hazard statements (GHS US) : May form combustible dust concentrations in air
 Causes eye irritation
 May cause cancer

Precautionary statements (GHS US) : Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wash hands, forearms and face thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 If exposed or concerned: Get medical advice/attention.
 Store locked up.
 Dispose of contents/container to in accordance with local/regional/national/international regulations.

Supplemental information : Exposure to silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound. Finished product is not considered carcinogenic.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Zoecon Altosid Briquets

Safety Data Sheet

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	8.62
Silica, crystalline - quartz	(CAS-No.) 14808-60-7	< 0.73
Plaster of paris	(CAS-No.) 26499-65-0	71.84
Activated Carbon	(CAS-No.) 7440-44-0	17.53
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after eye contact : Causes mild eye irritation.
- Chronic symptoms : May cause cancer.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Carbon dioxide. Water spray. Dry chemical. Foam.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Explosion hazard : Dust cloud can be ignited by a spark. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Reactivity : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Contain spill and monitor for excessive dust accumulation. Turn off electric power to area. No flames, no sparks. Eliminate all sources of ignition. Wear appropriate personal protective equipment, avoid direct contact.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

Zoecon Altosid Briquets

Safety Data Sheet

Emergency procedures : Contain spill and monitor for excessive dust accumulation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Turn off electric power to area. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Evacuate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Sweep or scoop spills, dispose of any unusable material in approved landfill. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Use appropriate PPE.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Take all necessary technical measures to avoid or minimize the release of the product on the workplace.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Store locked up.

Incompatible materials : Heat, sparks, open flame. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silica, crystalline - quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³
IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
Plaster of paris (26499-65-0)		
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
Activated Carbon (7440-44-0)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ Inhalable; 3 mg/m ³ Respirable
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ Total dust; 5 mg/m ³ Repirable

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Zoecon Altosid Briquets

Safety Data Sheet

Safety glasses

Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Gray to black solid
Color	: Gray to black
Odor	: Slight hydrocarbon
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Bulk density	: 1.04 g/cc (64.9 lb/ft ³)
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Combustible Dust
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. May form combustible dust concentrations in the air.

10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.

Zoecon Altosid Briquets

Safety Data Sheet

10.5. Incompatible materials

Heat, sparks, open flame. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Zoecon Altosid Briquets	
LD50 oral	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg

Silica, crystalline - quartz (14808-60-7)	
Listed on IARC (International Agency for Research on Cancer), Listed as carcinogen on NTP (National Toxicology Program)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Exposure to dust may cause respiratory irritation. Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss.

Chronic : Repeated and prolonged exposure to crystalline silica containing materials may cause irritation and/or lung damage silicosis, fibrosis, inflammation, cancer.

Skin

Acute : Exposure to dust may cause mechanical irritation.

Eye

Acute : Causes mild eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA. Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans. Exposure to respirable crystalline silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound, thus the finished product is not considered carcinogenic under conditions of normal use.

Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)

Zoecon Altosid Briquets

Safety Data Sheet

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Silica, crystalline - quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Activated Carbon (7440-44-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
FIFRA Labelling	
EPA Registration Number	2724-375
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Signal word	Caution
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling.

Zoecon Altosid Briquets

Safety Data Sheet

FIFRA First Aid	If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental Hazards	Do not contaminate water when disposing of unused product.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 01 November 2003
Revision date : 14 April 2020
Supersedes : 23 July 2015

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.



Altosid[®]

LIQUID LARVICIDE CONCENTRATE



**PREVENTS ADULT MOSQUITO EMERGENCE (Including those which may transmit West Nile virus)
FOR CONTROL OF MOSQUITO LARVAE INCLUDING ULV APPLICATION**

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6).....20%

OTHER INGREDIENTS:80%

TOTAL:100%

Formulation contains 1.72 lb/gal (205.2 g/liter) active ingredient

EPA REG. NO. 2724-446 EPA EST. NO. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

BECAUSE OF THE UNIQUE MODE OF ACTION OF **A.L.L.**, SUCCESSFUL USE REQUIRES FAMILIARITY WITH SPECIAL TECHNIQUES FOR APPLICATION TIMING AND TREATMENT EVALUATION. SEE **GUIDE TO PRODUCT APPLICATION** OR CONSULT LOCAL MOSQUITO ABATEMENT AGENCY.

PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS
AND DOMESTIC ANIMALS**

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID

Call a poison control center or doctor immediately for treatment advice.

If in eyes • Hold eye open and rinse slowly and gently with water for 15–20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

If on skin or clothing • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15–20 minutes.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

MIXING AND HANDLING INSTRUCTIONS

- 1. SHAKE WELL BEFORE USING.** Zoëcon[®] Altosid[®] Liquid Larvicide Concentrate (A.L.L.) may separate on standing and must be thoroughly agitated prior to dilution.
- Do not mix with oil; use clean equipment.
- Partially fill spray tank with water; then add the labeled amount of **A.L.L.**, agitate, and complete filling. Mild agitation during application is desirable.
- Use spray solution within 48 hours; always agitate before spraying.

APPLICATIONS

Mosquito Control: **A.L.L.** must be applied to 2nd, 3rd, or 4th larval instars of floodwater mosquitoes to prevent adult emergence. Treated larvae continue normal development to the pupal stage where they die. This

insect growth regulator has no effect when applied to pupae or adult mosquitoes. **A.L.L.** has sufficient field life to be effective at label rates when applied to larval stages under varying field conditions. For further information, see **Guide to Product Application**.

For Control of Mosquito Larvae Using ULV Application:

For ground application to terrestrial sites, apply at the rate of $\frac{3}{4}$ - 1 ounce of product per acre to water-holding containers and other small bodies of water that breed mosquitoes. Use equipment capable of applying a fine mist or ULV. Follow equipment manufacturer's recommendations when making applications. Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water.

METHODS OF APPLICATION

Aerial: Use the amount of **A.L.L.** listed below in sufficient water to give complete coverage. One-half to 5 gallons of spray solution per acre is usually satisfactory. Do not apply when weather conditions favor drift from areas treated.

Ground: Determine the average spray volume used per acre by individual operators and/or specific equipment. Mix **A.L.L.** in the appropriate volume of water to give the rate per acre shown below.

APPLICATION RATE

Apply $\frac{3}{4}$ to 1 fl oz of **A.L.L.** per acre (55 to 73 ml/hectare) in water as directed.

For Control of Mosquito Larvae Using ULV Application:

Apply at $\frac{3}{4}$ - 1 ounce per acre. Reapply as breeding sites become reinfested or when monitoring indicates an increase in adult populations.

APPLICATION SITES

Pastures: **A.L.L.** may be applied after each flooding without removal of grazing livestock.

Rice: **A.L.L.** must be applied to 2nd, 3rd, and/or 4th instar larvae of mosquitoes found in rice, usually within 4 days after flooding. **A.L.L.** treatment may be repeated with each flooding.

Intermittently Flooded Noncrop Areas: Apply **A.L.L.** as directed above when flooding may result in floodwater mosquito hatch. Typical sites include: freshwater swamps and marshes, salt marshes, woodland pools and meadows, dredging spoil sites, drainage areas, waste treatment and settling ponds, ditches and other natural and manmade depressions.

Crop Areas: Apply **A.L.L.** to irrigated croplands after flooding to control mosquito emergence. Examples of such sites are: vineyards, rice fields (including wild rice), date palm orchards, fruit and nut orchards, and berry

fields and bogs. Irrigated pastures may be treated after each flooding **without** removal of livestock.

Dense Vegetation or Canopy Areas: Apply an **A.L.L.** sand mixture using standard granular dispersal equipment. For detailed preparation instructions, refer to **Guide to Product Application**.

TANK MIXING INSTRUCTIONS

A.L.L. may be tank mixed with liquid *Bacillus thuringiensis* variety *israeliensis* (*B.t.i.*) formulations. The ratio of *B.t.i.* to **A.L.L.** is to range from 24:1 to 50:1 (volume/volume). For example, to prepare a 50:1 tank mix, add 1 gallon of **A.L.L.** to 50 gallons of *B.t.i.* This tank mix can be applied to sites listed above at rates of 2 to 16 fluid ounces/acre (0.15–1.2 liters/hectare). The user, at his discretion, can tank mix **A.L.L.** with an adulticide currently registered for use unless the product label prohibits such mixing. The resulting tank mixture must be used in accordance with the more restrictive label limitations and precautions.

Chemigation: Refer to supplemental labeling entitled "**Guide to Product Application**" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Storage:** Store in a cool place, away from other pesticides, food, and feed. In case of leakage or spill, soak up with sand or another absorbent material. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows. Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For information, call **1-800-248-7763** or visit our Web site: **www.altosid.com**

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



Altosid, Zoëcon and the Zoëcon logo are registered trademarks of Wellmark International.
©2006-2011 Wellmark International.

October, 2011
Schaumburg, IL



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name

- **Zoecon Altosid Liquid Larvicide Concentrate**

Synonyms

- 37240E; EPA Reg. No.: 2724-446; Strike Professional Midge Control; Zoecon RF-437 Mosquito Growth Regulator SR-20

Product Description

- White, opaque liquid.

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Insect growth regulator

Restrictions on use

- Keep out of reach of children. Avoid contact with eyes, skin or clothing.

Details of the supplier of the safety data sheet

Manufacturer

- Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States

www.centralmosquitocontrol.com

Emergency telephone number

- **Manufacturer (Transportation)** • 1-800-424-9300 - CHEMTREC

- **Manufacturer (Transportation)** • 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

Manufacturer

- 1-888-914-2082

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Not classified; does not meet hazard criteria.

Label elements

OSHA HCS 2012

- **Hazard statements** • No label element(s) required

Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
(s)-Methoprene	CAS:65733-16-6	20%
Other ingredients	NDA	80%

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation**
- IF INHALED: Move person to fresh air. If person is not breathing, call 911 or get medical help then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or seek medical advice.
- Skin**
- IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Eye**
- IF IN EYES: Hold eye open and rinse gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Ingestion**
- IF SWALLOWED: Call a POISON CONTROL center or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media**
- SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.

- Firefighting Procedures**
- Move containers from fire area if you can do it without risk. Use extinguishing agent suitable for type of surrounding fire. Do not allow fire fighting water to escape into waterways or sewers.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- No data available.

- Hazardous Combustion Products**
- No data available.

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Use appropriate Personal Protective Equipment (PPE). Avoid contact with skin, eyes, and clothing. Ventilate the area.
- Emergency Procedures**
- Do not allow runoff into water, storm drains or drainage ditches.

Environmental precautions

- Contain and prevent from release into any waterway, sewer or drain.

Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

Section 7 - Handling and Storage

Precautions for safe handling

- Handling**
- Avoid contact with skin, eyes, and clothing. Wash hands thoroughly with soap and water after handling. Wear appropriate personal protective equipment, avoid direct contact.

Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a cool/low-temperature, well-ventilated, dry place. Keep container tightly closed.
- Incompatible Materials or Ignition Sources**
- Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food and feed.

Other Information

- See product label for additional information.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure controls

- Engineering Measures/Controls**
- Use adequate ventilation to remove vapors (fumes, dust etc)

Personal Protective Equipment

Pictograms



Respiratory

- If handling without sufficient ventilation, wear a NIOSH approved respirator with organic cartridge.

Eye/Face

- Wear chemical splash safety goggles.

Hands

- Wear chemical resistant gloves.

Skin/Body

- If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

General Industrial Hygiene Considerations

- Do not get in eyes or on skin or clothing. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	White, opaque liquid.
Color	White	Odor	Characteristic of hydrocarbons.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	Heat of Decomposition	No data available
pH	6.24 (10% in type I water)	Specific Gravity/Relative Density	1.01 g/ml
Density	No data available	Water Solubility	Insoluble
Viscosity	100 - 350 cPs @ 20°C (68°F)		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	No flash	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- Non-reactive under normal handling and storage conditions.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- No data available.

Incompatible materials

- No data available.

Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
(s)-Methoprene (20%)	65733-16-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • >34000 mg/kg; Inhalation-Rat LC50 • 5.19 mg/L; Skin-Rabbit LD50 • >5000 mg/kg; Irritation: Eye-Rabbit • Essentially non-irritating; Skin-Rabbit • Essentially non-irritating

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Classification criteria not met
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Carcinogenic Effects

- No component of this product present at 0.1% or greater is listed by IARC, OSHA or NTP.

Section 12 - Ecological Information

Toxicity

Components		
(s)-Methoprene (20%)	65733-16-6	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow Trout</i> 0.76 mg/L [Acute] 96 Hour(s) LC50 <i>Blue Gill</i> >0.37 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.048 mg/L [Chronic] Aquatic Toxicity-Crustacea: NOEC <i>Mysid shrimp</i> 0.014 mg/L [Chronic] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.11 mg/L [Acute]

48 Hour(s) LC50 *Daphnia magna* 0.36 mg/L [Acute]**Persistence and degradability**

- Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

Bioaccumulative potential

- No data available

Mobility in Soil

- (s)-Methoprene: 10-14 days, rapidly hydrolyzed in soil.

Other adverse effects

- No data available.

Ecological Fate

- Not hydrolyzed up to 30 days.

Other Information

- No data available.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Do not empty into drains.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Other information

IMO/IMDG • No data available

IATA/ICAO • No data available

Key to abbreviations

= N/A = Not applicable.

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Not regulated

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Precautionary Statements • KEEP OUT OF THE REACH OF CHILDREN.

Hazards to Humans and Domestic Animals • PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS-CAUTION: Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

First Aid • Call a poison control center or doctor for treatment advice. If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If on skin or clothing • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.

Environmental Hazards • Do not contaminate water when disposing of rinsate or equipment washwaters.

Inventory		
Component	CAS	TSCA
(s)-Methoprene	65733-16-6	No

Section 16 - Other Information

Revision Date • 22/September/2015

Last Revision Date • 22/September/2015

Preparation Date • 22/September/2015

Disclaimer/Statement of Liability • The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.



Altosid®

LIQUID LARVICIDE

MOSQUITO GROWTH REGULATOR

PREVENTS ADULT MOSQUITO EMERGENCE (*Including those which may transmit West Nile virus, Zika, chikungunya and dengue*)

For control of mosquito larvae using ULV application

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)..... 5%

OTHER INGREDIENTS: 95%

TOTAL: 100%

Formulation contains 0.43 lb/gal (51.3 g/liter) active ingredient

EPA REG. NO. 2724-392 EPA EST. NO. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

BECAUSE OF THE UNIQUE MODE OF ACTION OF **A.L.L.**, SUCCESSFUL USE REQUIRES FAMILIARITY WITH SPECIAL TECHNIQUES FOR APPLICATION TIMING AND TREATMENT EVALUATION. SEE **GUIDE TO PRODUCT APPLICATION** OR CONSULT LOCAL MOSQUITO ABATEMENT AGENCY.

PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS – CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

FIRST AID

If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

CHEMIGATION

Refer to supplemental labeling entitled "**Guide to Product Application**" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

MIXING AND HANDLING INSTRUCTIONS

1. **SHAKE WELL BEFORE USING.** Zoëcon® Altosid® Liquid Larvicide Mosquito Growth Regulator (A.L.L.) may separate on standing and must be thoroughly agitated prior to dilution.
2. Do not mix with oil; use clean equipment.
3. Partially fill spray tank with water; then add the labeled amount of **A.L.L.**, agitate and complete filling. Mild agitation during application is desirable.
4. Use spray solution within 48 hours; always agitate before spraying.

APPLICATION INSTRUCTIONS

Introduction: **A.L.L.** must be applied to 2nd, 3rd, or 4th larval instars of target mosquitoes to prevent adult emergence. Treated larvae continue normal development to the pupal stage where they die. This insect growth regulator **has no effect when applied to pupae or adult mosquitoes.** **A.L.L.** has sufficient field life to be effective at appropriate rates when applied to larval stages under varying field conditions. For further information, see **Guide to Product Application.**

METHODS OF APPLICATION

Aerial: **A.L.L.** may be applied by aircraft to terrestrial locations where mosquito breeding occurs. Use the prescribed amount of **A.L.L.** listed below in sufficient water to give complete coverage. One-half to 5 gallons of spray solution per acre is usually satisfactory. Do not apply when

weather conditions favor drift from areas treated.

Ground: Determine the average spray volume used per acre by individual operators and/or specific equipment. Mix **A.L.L.** in the appropriate volume of water to give the rate per acre as indicated below.

For Control of Mosquito Larvae Using ULV Application: For ground and aerial application to terrestrial sites, apply at the rate of 3-4 fluid ounces of product per acre to water-holding containers and other small bodies of water that breed mosquitoes. Use equipment capable of applying a fine mist or ULV. Follow equipment manufacturer's recommendations when making applications. Direct spray applications to sites where mosquitoes breed. These sites include: tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water.

For aerial application to terrestrial sites, apply by fixed wing or rotary aircraft. Apply at the rate of 3 – 4 fluid ounces of product to acre diluted with water at a minimum of a 1:1 mix ratio with water. Apply using ULV equipped and capable aircraft. Unlike ULV sprays targeting flying mosquitoes, it is important that spray droplets deposit in targeted areas. Target terrestrial areas where mosquitoes breed. These sites include tires, open containers, garbage bins, birdbaths, and gutters, which hold small amounts of water. Spray equipment must be adjusted so that the volume median diameter (VMD) produced ranges from 60 microns ($D_{v_{0.5}} < 60\mu$) to 100 microns ($D_{v_{0.5}} < 100\mu$), and that 90% of the spray is contained in droplets smaller than 200 microns ($D_{v_{0.9}} < 200\mu$). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be calibrated annually to confirm that nozzle flow rate(s) are accurate. Do not apply at altitudes below 100 feet unless using unmanned aircraft designed for low application heights. Apply when wind speed on the ground is ≥ 1 mph and ≤ 10 mph. Apply when wind factors promoting drift are low. For best results, use Global Positioning System (GPS) equipped aircraft.

APPLICATION RATE

Apply 3 to 4 fl oz of **A.L.L.** per acre (219 to 293 ml/hectare) in water as directed.

For Control of Mosquito Larvae Using ULV Application: Apply at 3-4 ounces per acre. Reapply as breeding sites become reinfested or when monitoring indicates an increase in adult populations.

APPLICATION SITES

Pastures: **A.L.L.** may be applied after each flooding without removal of grazing livestock.

Rice: **A.L.L.** must be applied to 2nd, 3rd, and/or 4th instar larvae of mosquitoes found in rice, usually within 4 days

after flooding. **A.L.L.** treatment may be repeated with each flooding.

Intermittently Flooded Noncrop Areas: **A.L.L.** may be applied as directed above when flooding may result in floodwater mosquito hatch.

Typical sites include: freshwater swamps and marshes, salt marshes, woodland pools and meadows, dredging spoil sites, drainage areas, waste treatment and settling ponds, ditches and other natural and manmade depressions.

Crop Areas: **A.L.L.** may be applied to irrigated croplands after flooding to control mosquito emergence. Examples of such sites are: vineyards, rice fields (including wild rice), date palm orchards, fruit and nut orchards, and berry fields and bogs. Irrigated pastures may be treated after each flooding **without** the removal of grazing livestock.

In dense vegetation or canopy areas: Apply an **A.L.L.** sand or BIODAC® mixture using standard granular dispersal equipment. For detailed preparation instructions, refer to **Guide to Product Application.**

TANK MIXING INSTRUCTIONS

The user, at his discretion, can tank-mix **A.L.L.** with registered adulticides or other larvicides such as *Bacillus thuringiensis* variety *israeliensis* (*B.t.i.*) or *Bacillus sphaericus* (*B.s.*) unless the tank-mix product label prohibits such mixing. Use the resulting tank mixture in accordance with the more restrictive label limitations and precautions.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Pesticide Storage:** Store in cool place. Store product away from other pesticides, food, and feed. In case of leakage or spill, soak up with sand or another absorbent material. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Handling:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows. Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For information, call **1-800-248-7763** or visit our Web site: **www.centralmosquitocontrol.com**

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



Altosid, Zoëcon and Zoëcon with design are registered trademarks of Wellmark International. ©2006-2017 Wellmark International.

February 2017
Schaumburg, IL



Altosid[®]

LIQUID LARVICIDE

MOSQUITO GROWTH REGULATOR



PREVENTS EMERGENCE OF ADULT FLOODWATER MOSQUITOES
GUIDE TO PRODUCT APPLICATION

For information, call **1-800-248-7763** or visit
our Web site: **www.altosid.com**

EPA Reg. No. 2724-392
EPA Est. No. 2724-TX-1

©2006, 2011 Wellmark International
Made in USA

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ALTODAC, ALTOSAND, Altosid, Zoëcon and the Zoëcon design are trademarks of
Wellmark International.
BIODAC is a registered trademark of Kadant Grantek, Inc.
Central Garden & Pet and the Central Garden & Pet design are trademarks of Central
Garden & Pet Company.

Prod. No. 37240E

300509085

FOR THE FIRST TIME USER

Zoëcon[®] Altosid[®] Liquid Larvicide Mosquito Growth Regulator (A.L.L.) is the result of extensive research into the intricacies of natural biochemical and physiological development of insects. New chemical technology and biological findings were combined to develop a unique mosquito larvicide.

A.L.L., an insect growth regulator (IGR), acts by inducing morphological changes which interfere with normal development. These effects, not immediately apparent, result in the failure of adult mosquitoes to emerge from pupae. **A.L.L.** is **not** a conventional pesticide. It does not produce the nondiscriminatory rapid, directly toxic effects that are associated with traditional larvicides. **A.L.L.** differs from other larvicides you may have used only in the manner and time course of its action **after** application.

A.L.L. is applied to second, third, or fourth instar larvae using standard larviciding equipment in a manner similar to other larvicides. After application to second, third, or fourth instar larvae at the appropriate rates, absolutely no effects on larvae will be observed. They will continue developing normally and will pupate. Pupae will appear unaffected, but will eventually die. **Adults will not emerge.** Infrequently, a few adults may be seen at the water surface but they will have abnormalities preventing flight and will not survive. Because the effect of **A.L.L.** is neither larval death nor widespread mortality immediately following pupation, the **number of adults which emerge is the only criterion for accurately assessing control.** Checks by dip counts during larval and pupal stages will give no measure of effectiveness.

Refer to the following diagram and checklist, in addition to label instructions for guidance in timing of application and performance evaluation. They will assist you in obtaining the best possible results with this unique product.

Wellmark International

1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

The information presented herein, while not guaranteed, is to the best of our knowledge true and accurate. No warranty or guarantee, expressed or implied, is made regarding the performance or stability of any product, since the manner of use and conditions of storage and handling are beyond our control.

CHECKLIST

Things to remember when using **A.L.L.**

DO the following:

1. **DO** treat second, third, and/or fourth instar larvae, not pupae or adults. (First instar larvae are so small they are not readily detectable.)
2. **DO** wait until treated larvae have pupated. Then **collect pupae** and transfer to laboratory to observe for emergence of adults.
3. **DO** observe pupae for several days, since death of IGR treated mosquitoes occurs when pupae would normally emerge as adults. (Careful observation is necessary since dead pupae decompose rapidly and thus are not easily seen.)
4. **DO** monitor emerging adults at the treatment site. This absolutely requires that emergence traps be placed in treatment areas to capture adult mosquitoes as they emerge.

DO NOT do the following:

1. **DO NOT** take dip counts of larvae after treatment for the purpose of performance evaluation. **Normal looking larvae** will be present.
2. **DO NOT** take dip counts of pupae after treatment for the purpose of performance evaluation. **Normal looking pupae** will be seen but these will not develop into normal adults.
3. **DO NOT** think **A.L.L.** has failed if some adult mosquitoes are flying in treated areas; they probably have flown in from nearby untreated areas. Numbers 2 and 4 of the “**DO**” checklist are the only methods of accurately assessing effectiveness.
4. **DO NOT** spray again, either with **A.L.L.** or a conventional insecticide, because larvae or pupae are present after application. This is normal. The effectiveness of **A.L.L.** can only be measured by lack of adult emergence.

Preparation of ALTOSAND®

Granular Formulation

An “On-Site” Method of Preparing a Granular Formulation of A.L.L.

INTRODUCTION

A method of application of **A.L.L.**, using sand as a carrier, has been developed for use in floodwater mosquito breeding areas with dense vegetation or canopy. The characteristics of **ALTOSAND®** provide excellent foliage penetration, ensuring that the active ingredient reaches the water where it is released from the sand.

ALTOSAND® will prevent the emergence of species of the floodwater mosquito complex when applied to second, third, or fourth larval instars at a rate of 10 to 13 pounds per acre.

PREPARATION INSTRUCTIONS

The following materials are required to prepare a 100 lb batch of **ALTOSAND®**:

- 96 lb washed, dry sand (20 to 45 mesh)
- 2 lb **A.L.L.** (15 fl oz/lb)
- 2 lb HiSil 233 (silicon dioxide)
- Small Funnel
- Cement Mixer

1. Measure the time required for a level funnel full of sand to empty.
2. Into a rotating-type mixer, place 96 lb of dry (20 to 45 mesh) sand. While the mixer is rotating, slowly pour 2 lb (30 fl oz) of **A.L.L.** onto the sand. (If better wetting is required, **A.L.L.** may be diluted in up to an equal volume of water.)
3. Mix until the sand is uniformly coated with **A.L.L.** (usually 5 to 10 minutes).
4. Stop the mixer and add 2 lb of HiSil 233. Cover the mixer to reduce dust. Start the mixer and run for approximately 5 minutes. (The quantity of HiSil 233 necessary to achieve a dry, free-flowing mixture will vary depending on the particle size distribution and moisture of the sand.)
5. Compare the flow rate of the **ALTOSAND®** mixture with that of untreated sand in Step No. 1. Add more HiSil if it flows significantly slower and reduce the amount of HiSil in subsequent batches if the mixture flows at the same or a faster rate and is excessively dusty.

APPLICATION RATE AND METHODS

Apply at a rate of 10 to 13 lb of the final mixture per acre, using standard granular dispersal equipment.

Preparation of Altodac™

Granular Formulation

An “On-Site” Method of Preparing a Granular Formulation of A.L.L.

INTRODUCTION

A method of **A.L.L.** application, using **BIODAC®** as carrier, has been developed for use in mosquito breeding areas in floodwater and intermittently flooded noncrop areas including freshwater and saltwater marshes. The characteristics of **A.L.L.** using **BIODAC®** carrier provide excellent coverage, ensuring that the active ingredient reaches the water and is released from the **BIODAC®**.

A.L.L. will prevent the emergence of adult mosquitos when applied to second, third, or fourth larval instars at a rate of 10 to 13 pounds per acre.

PREPARATION INSTRUCTIONS

The following materials are required to prepare a 100 lb batch of **ALTODAC™** using **BIODAC®** carrier:

- 96 lb **BIODAC®** 12/20
- 30 oz **A.L.L.**
- 32 oz water

1. Weigh the required amounts of **A.L.L.** into a tared container suitable for mixing.
2. Weigh the water into the vessel containing the **A.L.L.** Stir the contents in the vessel until a uniform mixture is achieved.
3. Add the appropriate amount of **BIODAC®** 12/20 to a blending device, e.g., a cement mixer with lifters, a munson blender, or any other device that will allow the granules to tumble through a spray.
4. Add the water/**A.L.L.** mixture to a spray unit or any pressurized device capable of delivering a cone-shaped, fine particle size spray to the contents in the blender.
5. Spray the mixture of **A.L.L.** and water onto the **BIODAC®** while the blender is tumbling the granules. Once the mixture has been applied to the **BIODAC®**, continue to blend until the granules appear to be dry (usually 5 to 10 minutes).
6. Remove the granules and screen over a 12 mesh screen to remove agglomerates.

APPLICATION RATE AND METHODS

Apply at a rate of 10 to 13 lb of the final mixture per acre using granular dispersal equipment.

Chemigation: Apply this product only through flood (basin), furrow, or border irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Flood (Basin), Furrow, and Border Chemigation: Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

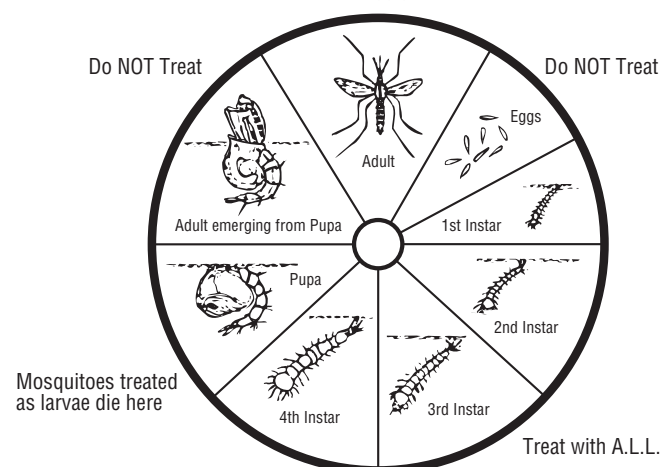
Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

A pesticide supply tank is recommended for the application of **A.L.L.** by chemigation.

LIFE CYCLE OF MOSQUITO

When to Apply A.L.L.





Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator

Safety Data Sheet

Date of issue: 05/31/2017

Supersedes: 02/01/2016

Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator
Synonyms : 37240E, Altosid Liquid Larvicide, EPA Reg. No.: 2724-392, 100530325

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
Restrictions on use : Avoid contact with skin and eyes, Keep out of reach of children.

1.3. Supplier

Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.centralmosquitocontrol.com

1.4. Emergency telephone number

Emergency number : 1-888-914-2082
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(s)-Methoprene	(CAS-No.) 65733-16-6	5
Other ingredients	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator

Safety Data Sheet

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep only in original container.
Incompatible materials : Strong acids. Strong bases. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator

Safety Data Sheet

Skin and body protection:

Wear suitable protective clothing



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Creamy white, opaque liquid.
Color	: Creamy white
Odor	: Characteristic of hydrocarbons
Odor threshold	: No data available
pH	: 6.85
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No flash
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1 (25 °C)
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 165 cP (20 °C)
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator

Safety Data Sheet

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h
pH	6.85

GHS-US Properties	Classification
Acute toxicity	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cells mutagen	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicant (single exposure)	Not classified
Specific target organ toxicant (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Skin

Acute : Causes mild skin irritation.

Eye

Acute : Causes mild eye irritation.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as carcinogen by NTP, IARC and OSHA.

Reproductive Effects : (s)-Methoprene is not a reproductive toxin.

SECTION 12: Ecological information

12.1. Toxicity

(s)-Methoprene (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

(s)-Methoprene (65733-16-6)	
Log Kow	6.3

12.4. Mobility in soil

(s)-Methoprene (65733-16-6)	
Mobility in soil	10-14 days, rapidly hydrolyzed in soil.

12.5. Other adverse effects

No additional information available

Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator

Safety Data Sheet

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

FIFRA Labelling	
EPA Registration Number	2724-392
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Signal Word	Caution
FIFRA Hazard Statement	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
FIFRA First Aid	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
FIFRA Environmental Hazards	Do not contaminate water when disposing of rinsate or equipment washwaters or rinsate.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 31 May 2017
Supersedes : 01 February 2016

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.



Altosid[®] P35



An extended residual INSECT GROWTH REGULATOR GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE (including those mosquitoes which may transmit diseases, including West Nile virus, Dengue, Chikungunya, and the Zika virus)

Controls mosquitoes for up to 35 days of continuous wet conditions

Dust free formula

Controls *Aedes*, *Culex*, *Psorophora*, *Anopheles*, *Coquillettidia*, *Mansonia*, *Ochlerotatus*, and other mosquitoes

Consistent size granule

May be applied to both crop and non-crop sites

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)..... 4.25%

OTHER INGREDIENTS:..... 95.75%

TOTAL:..... 100.00%

EPA REG. NO. 89459-95 EPA EST. NO. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

Causes moderate eye irritation. Avoid contact with eyes or clothing. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID

If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
-------------------	---

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

INTRODUCTION

Zoecon[®] Altosid[®] P35 (Altosid[®] P35) larvicide is used against mosquito larvae in a variety of habitats. Altosid[®] P35 provides consistent release of the Insect Growth Regulator (IGR), S-Methoprene to provide residual control for multiple broods for up to 35 days of continuous wet conditions. Altosid[®] P35, when applied to the water column releases effective levels of the IGR to begin affecting larval development thereby preventing adult mosquito emergence. Altosid[®] P35 controls the major species of mosquitoes including: *Aedes*, *Anopheles*, *Psorophora*, *Culex*, *Culiseta*, *Ochlerotatus*, *Coquillettidia* and *Mansonia* spp.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

GENERAL DIRECTIONS: Altosid[®] P35 begins releasing effective levels of IGR soon after application to inhibit and prevent the emergence of adult mosquitoes for up to 35 days after application. Continue applications throughout the entire season to maintain control. IGR treated larvae continue to develop normally to the pupal stage where they die.

Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply Altosid[®] P35. Ground equipment which will achieve even coverage at these rates may also be used. Apply Altosid[®] P35 uniformly and repeat application as necessary.

NOTE: Altosid[®] P35 has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION TIMING: Apply **Altosid® P35** at any stage of larval mosquito development. Granules may be applied 7 to 15 days prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood. In such areas, one application of **Altosid® P35** can prevent adult mosquito emergence from several subsequent wetting events. The actual length of control depends on the duration and frequency of wetting events.

APPLICATION RATES: **Altosid® P35** controls the major species of mosquitoes including: *Aedes*, *Anopheles*, *Psorophora*, *Culex*, *Culiseta*, *Coquillettidia* and *Mansonia* spp. Apply **Altosid® P35** at 2.5 - 20 lb/acre (5.6 - 11.2 kg/ha). Within these ranges, use lower rates when water is shallow [$< 6''-12''$] and vegetation and/or organic matter are minimal. Use higher rates when water is deep [> 1 foot] and/or vegetation and organic matter are heavy. In water depths greater than 2 feet, double the application rate for each subsequent foot of water. Depending on water depth and degree of organic matter, lower use rates may provide less IGR residual. Application of **Altosid® P35** to sites subject to water flow or exchange will diminish the product's effectiveness and residual activity, which may require higher application rates and/or more frequent applications.

APPLICATION SITES: **Altosid® P35** may be applied to both crop and non-crop areas as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, animal watering troughs, water-holding receptacles (e.g., tires, urns, bird baths, flower pots, cans, and other containers), irrigated and non-irrigated pastures, hoof prints and other natural and manmade water-holding sites, containers and depressions. Examples of crop areas include: irrigated croplands, pastures, rangeland, vineyards, rice fields (domestic and wild), date palm, citrus, fruit and nut orchards, berry fields, bogs and row crops.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage or disposal. **Pesticide Storage:** Store closed containers in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Handling (Paper/Plastic Bags):** Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(For refillable totes): Refillable container. Refill this container with this product only. Do not reuse this container for any other purpose. Return empty container to Central Garden & Pet Company [Central Life Sciences] for cleaning and recycling. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If the container is not returned, completely empty container by tapping sides and bottom to loosen material. Then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

WARRANTY

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The Directions for Use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Central Garden & Pet Company. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Central Garden & Pet Company makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Central Garden & Pet Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Central Garden & Pet Company disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries, or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Central Garden & Pet Company's election, the replacement of product.

For information, call **1-800-248-7763** or visit our Web site: **www.centralmosquitocontrol.com**

Manufactured for:

Central Garden & Pet Company
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



Altosid, Zoëcon and Zoëcon with design are registered trademarks of Wellmark International. ©2017 Wellmark International.

October 2017
Schaumburg, IL

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Name : Zoecon Altosid P35
Synonyms : EPA Reg. No.: 89459-95, RF2258 SCR Granules, 100544003, 100531822, 100531823, 100548925

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
Restrictions on use : Keep out of reach of children. Avoid breathing dust. Avoid contact with eyes, skin and clothing.

1.3. Supplier

Central Garden & Pet
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.centralmosquitocontrol.com

1.4. Emergency telephone number

Emergency number : 1-800-248-7763
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is not considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	4.25
Silica, amorphous, precipitated and gel	(CAS-No.) 112926-00-8	5.4 – 6.3
Calcium(II) sulfate, dihydrate (1:1:2)	(CAS-No.) 10101-41-4	67.9 – 71.5
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Zoecon Altosid P35

Safety Data Sheet

- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.
- Incompatible materials : Strong acids. Moisture and humidity.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silica, amorphous, precipitated and gel (112926-00-8)		
OSHA	OSHA PEL TWA [1]	Mineral Dusts: 20 mppcf TWA; (80)/(% SiO ₂) mg/m ³
OSHA	Remark (OSHA)	(3) See Table Z-3.
Calcium(II) sulfate, dihydrate (1:1:2) (10101-41-4)		
ACGIH	ACGIH OEL TWA	10 mg/m ³ (inhalable particulate matter)

Zoecon Altosid P35

Safety Data Sheet

8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Light gray round granular solid
Color	: Light gray
Odor	: Slightly fruity
Odor threshold	: No data available
pH	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.931 - 0.959 g/cc
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

Zoecon Altosid P35

Safety Data Sheet

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Zoecon Altosid P35	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Under normal conditions of use, no health effects are expected.

Skin

Acute : May cause mild skin irritation.

Eye

Acute : May cause mild eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

Zoecon Altosid P35

Safety Data Sheet

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

EPA Labelling	
EPA Registration Number	89459-95
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Avoid contact with eyes or clothing. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.
FIFRA First aid	If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Zoecon Altosid P35

Safety Data Sheet

FIFRA Environmental hazards	Do not contaminate water when disposing of rinsate or equipment washwaters.
-----------------------------	---

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date	: 20 November 2017
Revision date	: 27 July 2022
Supersedes	: 01 October 2020

Indication of changes:

Revised Sec. 1: Added material number(s).

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.



Altosid[®] PELLETS

MOSQUITO GROWTH REGULATOR

A GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE (INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:
 (S)-Methoprene (CAS #65733-16-6) 4.25%
OTHER INGREDIENTS: 95.75%
 Total 100.00%

EPA Reg No. 2724-448 EPA Est. No. 39578-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Call a poison control center or doctor for treatment advice.	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

INTRODUCTION

ZOËCON[®] ALTOSID[®] Pellets (ALTOSID[®] Pellets) release ALTOSID[®] Insect Growth Regulator as they erode. ALTOSID[®] Pellets prevent the emergence of adult standing water mosquitoes, including *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as adults of the floodwater mosquitoes such as *Aedes*, *Ochlerotatus*, and *Psorophora* spp. from treated sites.

GENERAL DIRECTIONS

ALTOSID[®] Pellets release effective levels of ALTOSID[®] Insect Growth Regulator for up to 30 days under typical environmental conditions. Continue treatment through the last brood of the season. Treated larvae continue to develop normally to the pupal stage where they die. **NOTE:** This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION SITES AND RATES

Use lower application rates when water is shallow, vegetation and/or pollution are minimal, and insect populations are low. Use higher rates when water is deep (>2 ft), vegetation, pollution, and/or organic debris or water flow are high, and insect populations are high. In instances of high organic debris and water flow, residual activity may be diminished.

MOSQUITO HABITAT **RATE (LB/ACRE)**

Floodwater sites

Pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, cattail marshes, woodland pools, flood-plains, tires, other artificial water-holding containers 2.5–5

Dredging spoil sites, waste treatment and settling ponds, ditches and other manmade depressions 5–10

Permanent water sites

Ornamental ponds and fountains, fish ponds, cattail marshes, water hyacinth beds, flooded crypts, transformer vaults, abandoned swimming pools, construction and other manmade depressions, treeholes, other artificial water-holding containers 2.5–5

Storm drains, catch basins, roadside ditches, cesspools, septic tanks, waste settling ponds, vegetation-choked phosphate pits 5–10

APPLICATION METHODS

Mosquitoes: Apply **ALTOSID® Pellets** up to 15 days prior to flooding, or at any stage of larval development after flooding or in permanent water sites. Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 2.5 to 10 lb/acre may be used to apply **ALTOSID® Pellets**. The pellets may also be applied using ground equipment which will achieve good, even coverage at the above rates. Apply **ALTOSID® Pellets** to artificial containers such as tires and catch basins, etc.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Store closed containers of **ALTOSID® Pellets** in a cool, dry place.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of an emergency, call **1-800-248-7763**.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173





Safety Data Sheet

Section 1: Identification

Product identifier

Product Name

- **Zoecon Altosid Pellets**

Synonyms

- 100503099; 37720B; 37730D; 38540; EPA Reg. No.: 2724-448; Prolink Pellets Mosquito Growth Regulator; Strike Pellets; Zoecon Altosid Pellets WSP; Zoecon Altosid WSP; Zoecon RF-330 Altosid Mosquito Growth Regulator

Product Description

- Black rod-shaped pellets.

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Insect growth regulator

Restrictions on use

- Keep out of the reach of children. Avoid contact with eyes, skin or clothing. Avoid breathing dust.

Details of the supplier of the safety data sheet

Manufacturer

- Wellmark International
1501 E. Woodfield Road, Suite 200 West
Schaumburg, IL 60173
United States
www.centralmosquitocontrol.com

Emergency telephone number

Manufacturer

- 1-800-248-7763

Manufacturer

- 1-800-424-9300 - CHEMTREC

Manufacturer

- 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Eye Mild Irritation 2B
Combustible Dust
Carcinogenicity 1A

Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • May form combustible dust concentrations in air.
Causes eye irritation
May cause cancer.

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal** • Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • The finished product is not considered carcinogenic because of the product's physical form. The Hazard Statement "May Cause Cancer" is presented because a component of this product contains a naturally occurring trace amount of crystalline silica (quartz) which is classified as carcinogenic to humans if inhaled. Respiratory exposure to silica dust from the finished product is not expected to occur under normal conditions of use due to the manner in which the constituents are bound or packaged in water soluble pouches. The crystalline silica in the finished product is unlikely to pose personal exposure via inhalation.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
(s)-Methoprene	CAS:65733-16-6	4.25%
Plaster of paris	CAS:26499-65-0	69.16%
Silica, crystalline - quartz	CAS:14808-60-7	0.7%
Activated Carbon	CAS:7440-44-0	9.26%
Other ingredients	NDA	16.63%

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms occur.

Skin

- IF ON SKIN: Wash with plenty of soap and water. If irritation or rash occurs, get

- medical advice/attention. Wash contaminated clothing before reuse.
- Eye**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended.

Most important symptoms and effects, both acute and delayed

- Causes eye irritation, may cause cancer. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media**
- Water fog, fine water spray, carbon dioxide or foam.

- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.

- Firefighting Procedures**
- Do not allow fire fighting water to escape into waterways or sewers. Combustible dust - use low-pressure medium fog streams to avoid dust clouds.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Combustible Dust.
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

- Hazardous Combustion Products**
- Carbon monoxide and carbon dioxide.

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Wear appropriate personal protective equipment, avoid direct contact. Keep all sources of ignition away and avoid creating dusty conditions. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not walk through spilled material. Ventilate enclosed areas.

- Emergency Procedures**
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Contain spill and monitor for excessive dust accumulation. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Carefully shovel or sweep up spilled material and place in suitable container. Use clean non-sparking tools to collect absorbed material. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Wear appropriate personal protective equipment, avoid direct contact.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Avoid contact with skin, eyes, and clothing. Wear appropriate personal protective equipment, avoid direct contact. Do not use in areas without adequate ventilation. Take precautionary measures against static charges. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage

- Store in cool, dry area, inaccessible to children. Store at temperatures not exceeding 90°F. Store away from heat or open flame. Store locked up.

Incompatible Materials or Ignition Sources

- Heat, sparks, open flame. Strong acids, strong bases, and oxidizing agents.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

- It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Silica, crystalline - quartz (14808-60-7)	TWAs	0.025 mg/m ³ TWA (respirable fraction)	0.05 mg/m ³ TWA (respirable dust)	Not established
Plaster of paris (26499-65-0)	TWAs	Not established	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust)	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

Exposure Limits Supplemental

OSHA

•Silica, crystalline - quartz (14808-60-7): **Mineral Dusts:** ((30)/(%SiO₂ + 2) mg/m³ TWA, total dust; (250)/(%SiO₂ + 5) mppcf TWA, respirable fraction; (10)/(%SiO₂ + 2) mg/m³ TWA, respirable fraction)

Exposure controls

Engineering Measures/Controls

- Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment). Local exhaust ventilation.

Personal Protective Equipment

Pictograms



Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if nuisance dust exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety glasses.

Hands

- Wear appropriate gloves.

Skin/Body

- If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

General Industrial Hygiene Considerations

- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Dark gray to black rod-shaped pellets.
Color	Dark gray to black.	Odor	Slight hydrocarbon.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	Not relevant
Specific Gravity/Relative Density	No data available	Bulk Density	59 to 60 lb(s)/ft ³
Water Solubility	Insoluble	Viscosity	Not relevant
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	Not relevant	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur. May form combustible dust concentrations in the air.

Conditions to avoid

- Heat, sparks, open flame, other ignition sources, and oxidizing conditions. Strong oxidizers.

Incompatible materials

- Heat, strong acids, strong bases and oxidizing agents.

Hazardous decomposition products

- Carbon monoxide and carbon dioxide.

Section 11 - Toxicological Information

Information on toxicological effects

CAS

Zoecon Altosid Pellets	NDA	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5100 mg/kg; Skin-Rabbit LD50 • >2100 mg/kg; Irritation: Eye-Rabbit • Mild irritation; Skin-Rabbit • Essentially non-irritating
------------------------	-----	--

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012 • Not classified - data lacking
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Mild Irritation 2B

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Exposure to respirable crystalline silica is not expected during normal use of this product. However, prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis).

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Causes eye irritation.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Other

- Chronic (Delayed)** • No data available.

Carcinogenic Effects

- Exposure to respirable crystalline silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound, thus the finished product is not considered carcinogenic under conditions of normal use.

Section 12 - Ecological Information

Toxicity

Component	CAS	Data

(s)-Methoprene (4.25%)	65733-16-6	Crustacea: NOEC Crustacea 0.014 mg/L [Chronic]; 48 Hour(s) LC50 Crustacea 0.36 mg/L [Acute]; Fish: 96 Hour(s) LC50 Fish 0.76 mg/L [Acute]; 96 Hour(s) LC50 Fish 0.37 mg/L [Acute]; NOEC Fish 0.048 mg/L [Chronic]
---------------------------	------------	--

Persistence and degradability

- No data available

Bioaccumulative potential

- No data available

Mobility in Soil

- No data available

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	N/A	Not regulated	N/A	N/A	N/A
IMO/IMDG	N/A	Not regulated	N/A	N/A	N/A
IATA/ICAO	N/A	Not regulated	N/A	N/A	N/A

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Other information

IMO/IMDG • No data available

IATA/ICAO • No data available

Key to abbreviations

= N/A = Not applicable.

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Acute

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal

pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Hazard Statements • KEEP OUT OF REACH OF CHILDREN

Precautionary Statements

Hazards to Humans and Domestic Animals • HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

First Aid • Call a poison control center or doctor for treatment advice. If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If on skin or clothing • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.

Environmental Hazards • Do not contaminate water when disposing of residue or equipment wash waters.

Inventory		
Component	CAS	TSCA
(s)-Methoprene	65733-16-6	No
Activated Carbon	7440-44-0	Yes
Plaster of paris	26499-65-0	No
Silica, crystalline - quartz	14808-60-7	Yes

Section 16 - Other Information

- Last Revision Date** • 22/June/2015
- Preparation Date** • 22/June/2015
- Disclaimer/Statement of Liability** • The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.



Altosid[®] XR EXTENDED RESIDUAL BRIQUETS

**A SUSTAINED RELEASE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE
(INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)**

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)
(Dry Weight Basis): 2.1%

OTHER INGREDIENTS: 97.9%
Total. 100.0%

EPA Reg. No. 2724-421

EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE ADDITIONAL PRECAUTIONARY STATEMENTS

INTRODUCTION

ALTOSID[®] XR BRIQUETS are designed to release effective levels of (S)-Methoprene insect growth regulator over a period up to 150 days in mosquito breeding sites. Release of (S)-Methoprene insect growth regulator occurs by dissolution of the briquet. Soft mud and loose sediment can cover the briquets and inhibit normal dispersion of the active ingredient. The product may not be effective in those situations where the briquet can be removed from the site by flushing action.

ALTOSID[®] XR BRIQUETS prevent the emergence of adult mosquitoes including: *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes*, *Ochlerotatus*, and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

NOTE: (S)-Methoprene insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC
ANIMALS - CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Call a poison control center or doctor for treatment advice.	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

APPLICATION TIME

Place **ALTOSID® XR BRIQUETS** at or before the beginning of the mosquito season. Apply **ALTOSID® XR BRIQUETS** prior to flooding when sites are dry, or on snow and ice in breeding sites prior to spring thaw. Under normal conditions, one application will last the entire mosquito season, or up to 150 days, whichever is shorter. Alternate wetting and drying will not reduce their effectiveness.

APPLICATION RATES

Aedes, Ochlerotatus, and Psorophora spp.: For control in non-(or low-) flow shallow depressions (≤ 2 feet in depth), treat on the basis of surface area, placing one **ALTOSID® XR BRIQUET** per 200 ft². Place briquets in the lowest areas of mosquito breeding sites to maintain continuous control as the site alternately floods and dries up.

Culex, Culiseta and Anopheles spp.: Place one **ALTOSID® XR BRIQUET** per 100 ft².

Coquillettidia and Mansonia spp.: For application to cattail marshes and water hyacinth beds. For control of these mosquitoes, place one **ALTOSID® XR BRIQUET** per 100 ft².

Culex sp. in storm water drainage areas, sewers, and catch basins: For catch basins, place one **ALTOSID® XR BRIQUET** into each basin. In cases of large catch basins, follow the chart below to determine the number of briquets to use. For storm water drainage areas, place one briquet per 100 ft² of surface area up to two ft deep. In areas that are deeper than two feet, use one additional briquet per two feet of water depth.

Water flow pressure increases the potential dissolution of the briquet. Conduct regular inspections (visual or biological) in areas of water flow to determine if the briquet is still present. Adjust the retreatment interval based on the results of an inspection.

ALTOSID® XR BRIQUETS Application Chart

Number of Briquets	Catch Basin Size (Gallons)	Surface Area/Water Depth (ft)
1	0 – 1500	0 – 2
2	1500 – 3000	2 – 4
3	3000 – 4500	4 – 6
4	4500 – 6000	6 – 8

APPLICATION SITES

ALTOSID® XR BRIQUETS are designed to control mosquitoes in treated areas. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water-holding sites in the system to maximize the efficiency of the treatment program.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE: Store in a cool place. Do not reuse empty container.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. To the extent permitted by law, Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information, or in case of an emergency, call 1-800-248-7763.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



ALTOSID, ZOECON and the ZOECON logo are registered trademarks of Wellmark International.
©2005-2010 WELLMARK INTERNATIONAL
Made in USA

May, 2010
Schaumburg, IL



Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

Issue date: 07/17/2015

Revision date: 07/22/2022

Supersedes: 05/31/2017

Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Name : Zoecon Altosid XR Extended Residual Briquets
Synonyms : 100508841, 100508842, 100508846, 100530326, EPA Reg. No.: 2724-421, ProLink XR Extended Release Briquets, Zoecon RF-292 Briquet, Altosid 150 Day XR Briquet

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
Restrictions on use : Keep out of reach of children and domestic animals. Avoid contact with eyes, skin or clothing.

1.3. Supplier

Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.zoecon.com

1.4. Emergency telephone number

Emergency number : 1-800-248-7763
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 2B

Causes eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : Causes eye irritation
Precautionary statements (GHS US) : Wash hands, forearms and face thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	2.1
Plaster of paris	(CAS-No.) 26499-65-0	> 77.6
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

First-aid measures after inhalation	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion	: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact	: Mild eye irritation.
------------------------------------	------------------------

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry chemical. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
------------	--

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
--------------------------------	--

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Keep upwind. Wear appropriate personal protective equipment, avoid direct contact.
----------------------	--

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
Emergency procedures	: Avoid dust formation. Do not scatter spilled material with high pressure water streams. Evacuate unnecessary personnel. Stay upwind. Stop release. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill.
-------------------------	--

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Provide local exhaust or general room ventilation. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool. Avoid humid, wet or moist conditions.
Incompatible materials	: Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

Plaster of paris (26499-65-0)		
OSHA	OSHA PEL TWA [1]	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	NIOSH REL TWA	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White to gray briquet
Color	: White to gray
Odor	: Slight hydrocarbon
Odor threshold	: No data available
pH	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.04 g/cc (64.9 lb/ft ³)
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable

Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

Explosive properties : Not explosive
Oxidizing properties : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid humid, moist or wet conditions.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Zoecon Altosid XR Extended Residual Briquets	
LD50 oral rat	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : May cause respiratory tract irritation.

Skin

Acute : May cause mild skin irritation.

Eye

Acute : Causes mild eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

EPA Labelling	
EPA Registration Number	2724-421
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

Zoecon Altosid XR Extended Residual Briquets

Safety Data Sheet

FIFRA First aid	Call a poison control center or doctor for treatment advice. If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental hazards	Do not contaminate water when disposing of unused product.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date : 17 July 2015
Revision date : 22 July 2022
Supersedes : 31 May 2017

Indication of changes:

Revised Sec. 1: Emergency telephone number. Revised Sec. 3: Mixture classification change.

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

SPECIMEN

Hydramethylnon

Group

20

Insecticide

Amdro® Pro

Fire Ant Bait

**KILLS IMPORTED AND NATIVE FIRE ANTS
and other ants**

KILLS THE QUEEN

DESTROYS THE MOUND

Active Ingredient:

hydramethylnon: tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone(3-[4-(trifluoromethyl)phenyl]-1-(2-[4-(trifluoromethyl)phenyl]-ethenyl)-2-propenylidene) hydrazone 0.73%

Other Ingredients: 99.27%

Total: 100.00%

EPA Reg. No. 241-322

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

See full label for additional **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product,
call day or night 1-800-832-HELP (4357).**

Net Contents:

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by the poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).</p>	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. May be harmful if swallowed.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This product is toxic to fish and aquatic invertebrates. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. **DO NOT** apply when weather conditions favor drift from target areas.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product by any method not specified on this label.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

The PPE required for early entry to treated areas which is permitted under the Worker Protection Standard and that involves contact with anything which has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

- Keep unprotected persons out of treated area during pesticide applications.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Store in cool, dry, secure place and keep container tightly closed. Store container away from pets. This product is formulated in an oil bait. Prolonged exposure to air may turn oil rancid and reduce the attractiveness of the bait. Use within 3 months after opening.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

(continued)

STORAGE AND DISPOSAL (continued)

Container Handling

(for plastic containers)

Nonrefillable Container. DO NOT reuse or refill this container. After completely emptying container into application equipment, offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

(for paper or plastic bags)

Nonrefillable Container. DO NOT reuse or refill this container. After completely emptying container into application equipment, dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Product Information

Amdro® Pro Fire Ant Bait is a bait which is highly attractive to imported and native fire ants and other ants. Worker ants carry the bait into the mound as food for the colony. The bait is eaten, fed to the queen, and the mound is destroyed. **Amdro Pro** starts to kill ants immediately. In about a week the queen is dead, destroying the mound. Further information regarding ants can be obtained from your Cooperative Agricultural Extension Service.

Amdro Pro controls:

Imported fire ants, little fire ants, native fire ants, and other ants, such as harvester ants, bigheaded ants, and Argentine ants.

Drift Management

Avoiding drift at the application site is the responsibility of the applicator. The interaction of many equipment-related and weather-related factors determines the potential for drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory** section.

Aerial Drift Reduction Advisory

Application Height

DO NOT release pesticide at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including equipment type, determine drift potential at any given speed.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from sensitive areas).

Resistance Management

For resistance management, **Amdro® Pro Fire Ant Bait** contains a **Group 20** insecticide. Any insect population may contain individuals naturally resistant to **Amdro Pro** and other **Group 20** insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **Amdro Pro** or other **Group 20** insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- Contact your local BASF representative, extension specialist, or certified crop advisor if resistance is suspected.

Application Instructions

Indoor Uses

Amdro Pro may be applied in homes, residential, commercial, and other structures, and in the nonfood/nonfeed areas of institutional, warehousing, and commercial establishments, such as groceries and supermarkets, hotels and motels, hospitals and nursing homes, schools, laboratories, computer facilities, food storage areas, sewers, transportation equipment, pet shops or zoos, and in the inedible product areas of meat or poultry plants. Nonfood areas can include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage (after canning or bottling).

In the home, all food processing surfaces and utensils must be covered during treatment or thoroughly washed before use. Cover or remove exposed food.

Using a duster or similar equipment, apply bait **ONLY** into cracks and crevices or other inaccessible areas such as, but not limited to, structural voids, unfinished attics, or crawl spaces. Apply 0.25 to 0.5 ounce per crack, crevice, or other inaccessible area where ants are entering the structure or where ants are nesting. Clean up any loose or excess bait. Apply evenly in unfinished attics and crawl spaces at a rate of 0.25 ounce per 100 square feet only if the space is secured or otherwise inaccessible to children or domestic animals.

Keep people and pets out of the area during application.

Outdoor Uses

Amdro Pro may be applied outdoors on lawns, landscaped areas, golf courses, and other noncropland areas such as airports, roadsides, cemeteries, commercial grounds, parks, school grounds, picnic grounds, athletic fields, and other recreational areas, as well as on grounds surrounding poultry houses (excluding runs and ranges) or corrals and other animal holding areas. **DO NOT** expose animals to **Amdro Pro** granules.

Amdro® Pro Fire Ant Bait may be applied in and around container or fieldgrown ornamental and nonbearing nursery stock and on sod farms (commercial turf). **Amdro Pro** can also be applied to the soil around nonbearing fruit or nut trees. **DO NOT** harvest food/feed from nonbearing nursery stocks within 1 year of application.

DO NOT graze or feed lawn or sod clippings to livestock.

Apply when ants are actively foraging (typically when soil temperature is greater than 60° F). Test using a small amount of bait near a fire ant mound. Repeat applications as needed.

Keep people and pets out of the area during application.

Avoid making applications if it is likely to rain within 24 hours of application, except when applying directly adjacent to a structure that is permanently protected from rainfall by a covering, overhang, awning, or other structure.

Avoid applying granules to impervious surfaces, except as a crack-and-crevice treatment.

Table 1. Outdoor Use Application Instructions

(continued)

Treatment	Rate	Comments
Broadcast Treatment: Bigheaded ants Argentine ant	1.0 to 2.0 lbs/acre (2.0 to 4.0 ozs/5000 sq ft)	<ul style="list-style-type: none"> • Broadcast bait uniformly with ground (granular spreaders) or aerial equipment. • DO NOT make more than four broadcast applications per year. • The minimum re-treatment interval for a broadcast application is 30 days.

Table 1. Outdoor Use Application Instructions

Treatment	Rate	Comments
Individual Mounds: Imported fire ants Little fire ants Native fire ants Harvester ants Bigheaded ants Argentine ant	2 to 5 level tablespoons	<ul style="list-style-type: none"> • Distribute bait uniformly around the mound. • DO NOT disturb the mound. • DO NOT apply more than 2.0 lbs per acre. • DO NOT contaminate kitchen utensils by use or storage.
Broadcast Treatment: Imported fire ants Little fire ants Native fire ants Harvester ants	1.0 to 1.5 lbs/acre (2.0 to 3.0 ozs/5000 sq ft)	<ul style="list-style-type: none"> • Broadcast bait uniformly with ground (granular spreaders) or aerial equipment. • DO NOT make more than four broadcast applications per year. • The minimum re-treatment interval for a broadcast application is 30 days.

(continued)

Grass Forage (Pasture and Rangeland)

Fire Ant Use Areas

For fire ant control in grass forage (pasture and rangeland), **Amdro Pro** or a blend of **Amdro Pro** plus **Extinguish® Professional Fire Ant Bait** can only be used in the following states:

Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia

Use of **Amdro Pro** on grass forage in states other than those listed is unlawful.

Apply **Amdro Pro** on grass forage (pasture and rangeland) to control ants. For fire ant control, refer to the **Fire Ant Use Areas** section. **DO NOT** exceed the maximum application rate of 8.0 lbs per acre per year. **DO NOT** apply more than 4 times per year with a minimum application interval of 90 days. Refer to **Table 1. Outdoor Use Application Instructions** for additional application information.

DO NOT cut and bale hay from pastures and rangeland treated with **Amdro Pro** until 7 days after the bait application is made. The cutting and baling hay restrictions do not apply when the treated pasture and rangeland is used solely to support companion animals (e.g. horses, llamas). These companion animals cannot be used for food or feed.

Amdro Pro plus Extinguish

Apply a blend of **Amdro Pro** and **Extinguish** to control imported fire ants in nonagricultural lands and grass forage (pasture and rangeland). For grass forage (pasture and rangeland), refer to the **Fire Ant Use Areas** section. These products cannot be mixed with any other product bearing a label prohibiting such mixing. Always read and follow all label directions when using any pesticide alone or in tank mix/hopper blend combinations. Observe all conditions, restrictions, and precautions that appear on all product labels. The most restrictive labeling applies when using tank mixtures.

Treatment	Rate	Comments
Broadcast Treatment: Imported fire ants	0.75 lb/acre Amdro Pro plus 0.75 lb/acre Extinguish	<ul style="list-style-type: none"> • Mix bait products together thoroughly before application. • Distribute bait uniformly with ground (granular spreaders) or aerial equipment. • DO NOT make more than four broadcast applications per year. • The minimum re-treatment interval for a broadcast application is 30 days.

Pineapple

Apply **Amdro Pro** in pineapple fields and in uncultivated land surrounding pineapple fields to control ants.

Conduct ant surveys to monitor ant populations before and after treatments.

Aerial applications are prohibited within:

- 200 ft of irrigation ditches, streams, ponds, and public roadways
- 1000 ft of residential areas

DO NOT make applications if it is likely to rain within 24 hours of application.

DO NOT exceed 6.0 lbs of **Amdro Pro** per acre within any 12-month period.

DO NOT harvest within 30 days after last application.

DO NOT feed green chop (leaves and crowns) to animals.

Treatment	Rate	Comments
Individual Mounds: Imported fire ants Little fire ants Native fire ants Bigheaded ants Argentine ant	5 level tablespoons	<ul style="list-style-type: none"> • Distribute bait uniformly around the mound. • DO NOT disturb the mound. • DO NOT contaminate kitchen utensils by use or storage.

(continued)

Treatment	Rate	Comments
Broadcast Treatment: Imported fire ants Little fire ants Native fire ants	1.0 to 1.5 lbs/acre/ application	<ul style="list-style-type: none"> • Broadcast by ground or aerial equipment (helicopter only) using disc or turbine blower-type spreaders to all infested fields. • Apply the first application approximately 1 month after planting. • Apply Amdro Pro no more than 4 applications per 12-month period with minimum application intervals of 90 days.
Broadcast Treatment: Bigheaded ants Argentine ant	1.0 to 1.5 lbs/acre/ application for moderate infestations 1.5 to 3.0 lbs/acre/ application for heavier infestations	<ul style="list-style-type: none"> • Broadcast by ground or aerial equipment (helicopter only) using disc or turbine blower-type spreaders to all infested fields. • Apply the first application approximately 1 month after planting. • Apply Amdro Pro no more than 4 applications per 12-month period with minimum application intervals of 90 days.

Tropical Fruit and Nut Orchards

Amdro Pro may be applied in tropical fruit and nut orchards when applied in bait stations. Tropical fruit and nut orchard crops include:

Abiu, acerola, akee apple, almond, ambarella, atemoya, avocado, banana, betel nut, biriba, black sapote, blimbe, breadfruit, canistel, carob bean, cashew, cherimoya, citrus, coconut, coffee, custard apple, date, durian, feijoa, fig, Governor's plum, green sapote, guava, ilama, imbe, imbu, Indian jujube, jaboticaba, jackfruit, jujube, longan, lychee, macadamia nut, mamey apple, mamey sapote, mango, mangosteen, marmaladebox, monstera, mountain papaya, naranjilla, Natal plum, noni, olie, otaheite gooseberry, papaya, passionfruit,

pawpaw, persimmon, pili nut, pitaya, pomegranate, pomerac, prickly pear, pulasan, rambutan, rose apple, sapodilla, sentul, soursop, Spanish lime, star apple, starfruit, strawberry pear, sugar apple, Surinam cherry, tamarind, wax jambu

Place **Amdro® Pro Fire Ant Bait** into bait stations (see **Bait Station Application Directions** for a list of applicable bait stations) that have been positioned in and around the listed orchard crops. **DO NOT** apply **Amdro Pro** directly to the ground around these crops. **DO NOT** apply directly to any part of the crop plant.

Apply **Amdro Pro** for control of bigheaded ants, fire ants, or little fire ants.

When applying for control of little fire ants, apply **Amdro Pro** in orchards **only** during non-fruiting periods of the growing season to avoid possible contamination of the fruit. Remove bait stations from orchard after flowering but before fruiting structures appear on crop plants. **DO NOT** apply **Amdro Pro** in orchards when fruits are present on crop plants.

Grape and Blueberry

Amdro Pro may be applied in grape and blueberry crops when applied in bait stations. Place **Amdro Pro** into bait stations (see **Bait Station Application Directions** for a list of applicable bait stations) that have been positioned in and around these crops. **DO NOT** apply **Amdro Pro** directly to the ground around these crops. **DO NOT** apply directly to any part of the crop plant.

Apply **Amdro Pro** for control of bigheaded ants, fire ants, or little fire ants.

When applying for control of little fire ants, apply **Amdro Pro** in crops **only** during non-fruiting periods of the growing season to avoid possible contamination of the fruit. Remove bait stations from crops after flowering but before fruiting structures appear on crop plants. **DO NOT** apply **Amdro Pro** in crops when fruits are present on crop plants.

Bait Station Application Directions

Fields with Actively Foraging Ants

See the **Bait Station Chart** to determine the amount of **Amdro Pro** to place into bait stations spaced at various lengths. Place the specified amount of **Amdro Pro** into the bait station depending on spacing of bait stations in the fields. Other bait station spacing may be used (e.g. 8 x 8, 22 x 22, etc.) depending on the design of the orchard, spacing of trees, and/or applicator preference to keep bait stations away from heavy traffic areas or roads or alleyways. Recalculate the amount of **Amdro Pro** to place in the bait station depending on the actual spacing of bait stations used. **DO NOT** exceed 1.5 lbs of **Amdro Pro** per acre when applied in bait stations.

After a minimum of 2 weeks, move bait stations further away from treated area into adjacent infested areas. Place bait stations at desired spacing, and place the specified amount of **Amdro Pro** into the bait station. However, if

ants continue to actively forage in or around bait stations, leave bait stations in place (and refill as necessary only with the specified amounts of **Amdro Pro**) until foraging activity is minimal or has ceased. Bait stations need not be placed immediately adjacent to nests.

Along Field Border (to prevent ants from reinfesting field)

Place bait stations in border areas of the fields at between 10 ft x 10 ft and 50 ft x 50 ft spacings, depending on orchard configuration and intensity of ant infestation. Refer to the **Bait Station Chart** and place the specified amount of **Amdro Pro** into the bait station depending on the spacing of bait stations. Monitor stations at 2-week intervals and replace **Amdro Pro** as necessary.

Bait Replacement in Bait Stations

Monitor bait stations to determine if ants are present. If ants are not present or **Amdro Pro** has remained in the bait station for more than 10 weeks, remove **Amdro Pro** from the bait station and distribute uniformly in noncrop border areas. Replace with the specified amount (see **Bait Station Chart**; amount depends on bait station spacing) of fresh **Amdro Pro** in the bait station and continue to monitor ant activity and **Amdro Pro** at 2-week intervals, or remove bait station from site.

Amdro Pro will remain effective for up to 10 weeks (or longer) depending on environmental conditions. Excessively wet conditions (prolonged high humidity, frequent and prolonged rainfall, and heavy mist) can reduce the effectiveness of **Amdro Pro**. Monitor ant activity in and around bait station and replace bait as necessary. Monitor ant activity by visual or mechanical (e.g. traps) methods.

Bait Stations

Several bait stations have been tested and allow ants to take the bait (e.g. **Perimeter Patrol System Ant Bait**, **Drax® Liquidator™ Ant Bait**, **A.C.E. Station**, **Ants-No-More® Ant Bait**). Bait stations that minimize exposure to sunlight (dark colored) and moisture will help retain the effectiveness of **Amdro Pro**.

Bait Station Chart		
Bait Station Spacing (feet x feet)	Amdro Pro (grams) per bait station	Amdro Pro (ounces) per bait station
50 x 50	39.0	1.375
45 x 45	31.6	1.115
40 x 40	25.0	0.88
35 x 35	19.2	0.675
30 x 30	14.0	0.495
25 x 25	10.0	0.345
20 x 20	6.5	0.22
15 x 15	3.5	0.124
10 x 10	1.6	0.055

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

PC309

Amdro is a registered trademark of Central Garden & Pet Company.

Siege is a registered trademark of BASF.

Ants-No-More is a registered trademark of Kness Mfg. Co., Inc.

Drax is a registered trademark of Waterbury Companies, Inc.

Extinguish is a registered trademark of Wellmark International.

© 2021 BASF Corporation
All rights reserved.

000241-00322.20210913.NVA 2021-04-166-0171

Based on: NVA 2020-04-166-0050
Supersedes: NVA 2013-04-166-0200

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
We create chemistry

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date : 2022/08/17

Version: 7.0

Page: 1/13

(30271490/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

Amdro Pro Fire Ant Bait

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 62027
Registration number: EPA Registration number: 241-322
Molecular formula: C25 H24 F6 N4
Synonyms: hydramethylnon

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Repr.	1B (fertility)	Reproductive toxicity
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 2/13

(30271490/SDS_CPA_US/EN)

Aquatic Acute	1	Hazardous to the aquatic environment - acute
Combustible Dust	Combustible Dust (1)	Combustible Dust

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H360	May form combustible dust concentration in air.
H400	May damage fertility.
H410	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

Precautionary Statements (Response):

P308 + P313	IF exposed or concerned: Get medical attention.
P391	Collect spillage.

Precautionary Statements (Storage):

P405	Store locked up.
------	------------------

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
------	---

Hazards not otherwise classified

Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

hydramethylnon

CAS Number: 67485-29-4

Content (W/W): 0.73 %

Synonym: No data available.

1,4-Benzenediol, 2-(1,1-dimethylethyl)-

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 3/13

(30271490/SDS_CPA_US/EN)

CAS Number: 1948-33-0

Content (W/W): < 0.2%

Synonym: 2-(1,1-Dimethylethyl)-1,4-benzenediol; Monotertiarybutylhydroquinone

Soybean oil

CAS Number: 8001-22-7

Content (W/W): 15.0 - 20.0%

Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 4/13

(30271490/SDS_CPA_US/EN)

Hazards during fire-fighting:

carbon monoxide, hydrogen fluoride, carbon dioxide, nitrogen oxides, halogenated compounds
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal. Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid dust formation. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 5/13

(30271490/SDS_CPA_US/EN)

clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition. Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1).

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed. Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Soybean oil	OSHA Z1:	PEL 5 mg/m3 Respirable fraction ;
	OSHA Z1:	PEL 15 mg/m3 Total dust ;
	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;
	OSHA Z3:	TWA value 50 millions of particles per cubic foot of air Total dust ;
	OSHA Z3:	TWA value 15 millions of particles per cubic foot of air Respirable fraction ;
	OSHA Z3:	TWA value 5 mg/m3 Respirable fraction ;
	OSHA Z3:	TWA value 15 mg/m3 Total dust ;

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 6/13

(30271490/SDS_CPA_US/EN)

designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	solid
Odour:	mild, of vegetable oils
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	tan
pH value:	approx. 6 - 8 (20 °C)
Melting point:	> 55 °C
Boiling point:	The product has not been tested.
Flash point:	> 220 °F (Unspecified)
Flammability:	Based on the structure or composition there is no indication of flammability

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 7/13

(30271490/SDS_CPA_US/EN)

Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Vapour pressure:	not applicable
Bulk density:	approx. 240 - 384 kg/m ³
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Self-ignition temperature:	approx. 404 °C Information based on the main component/s.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not applicable, the product is a solid
Solubility in water:	dispersible
Molar mass:	494.5 g/mol
Evaporation rate:	not applicable

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Not an oxidizer.

Dust explosion class:

Dust explosion class 1 (K_{st}-value >0 up to 200 bar m s⁻¹) (St 1)

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Incompatible materials

strong bases, strong acids, strong oxidizing agents

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 8/13

(30271490/SDS_CPA_US/EN)

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5 mg/l

Exposure time: 4 h

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

Type of value: LD50

Species: rabbit

Value: > 2,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 9/13

(30271490/SDS_CPA_US/EN)

Skin

Species: rabbit

Result: non-irritant

Eye

Species: rabbit

Result: non-irritant

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Skin sensitization test

Species: guinea pig

Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: hydramethylnon

Assessment of repeated dose toxicity: Repeated oral exposure to small quantities may affect certain organs.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 1,4-Benzenediol, 2-(1,1-dimethylethyl)-

Assessment of mutagenicity: Mutagenic properties can not be excluded on the basis of experimental data.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: hydramethylnon

Assessment of reproduction toxicity: Causes impairment of fertility in laboratory animals.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 10/13

(30271490/SDS_CPA_US/EN)

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to fish. Acutely toxic for aquatic plants. Acutely toxic for aquatic invertebrates.

Toxicity to fish

LC50 (96 h) 4.08 mg/l, Brachydanio rerio

Aquatic invertebrates

EC50 (48 h) 0.29 mg/l, Daphnia magna

Aquatic plants

EC50 (96 h) 0.3 mg/l, Scenedesmus obliquus

Chronic toxicity to aquatic invertebrates

Information on: hydramethylnon

No observed effect concentration (21 d) 0.000088 mg/l, Daphnia magna

Assessment of terrestrial toxicity

Acutely harmful to terrestrial organisms.

Other terrestrial non-mammals

Information on: hydramethylnon

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Information on: hydramethylnon

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: hydramethylnon

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17
Version: 7.0

Page: 11/13
(30271490/SDS_CPA_US/EN)

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

This product is not regulated by RCRA.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains HYDRAMETHYLNON)

Air transport

IATA/ICAO

Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains HYDRAMETHYLNON)

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 kg or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2:10.2.7; IATA: A197; TDS: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 12/13

(30271490/SDS_CPA_US/EN)

Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK

NJ

PA

CAS Number

67485-29-4

112-80-1

8001-22-7

Chemical name

hydramethylnon

oleic acid

Soybean oil

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes:

Health: 1

Fire: 1

Reactivity: 0

Special:

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

HARMFUL IF ABSORBED THROUGH SKIN.

May cause moderate but temporary irritation to the eyes.

MAY BE HARMFUL IF SWALLOWED.

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

Avoid contact with the skin, eyes and clothing.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/08/17

Safety Data Sheet

Amdro Pro Fire Ant Bait

Revision date: 2022/08/17

Version: 7.0

Page: 13/13

(30271490/SDS_CPA_US/EN)

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET



AquaANVIL™ Water-Based Adulticide

ACTIVE INGREDIENTS

Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate.....	10.00%
Piperonyl Butoxide*	10.00%
OTHER INGREDIENTS	80.00%
	100.00%

Contains 0.847 pounds of Technical Sumithrin®/Gallon and 0.847 pounds of Piperonyl Butoxide (PBO)/Gallon

*(butyl carbonyl) (6-propylpiperonyl) ether and related compounds

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
--------------------	---

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material beyond the body of water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically

approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

Do not treat a site with more than 0.0036 lbs of Sumithrin and Piperonyl Butoxide PBO per acre in a 24-hour period. Do not exceed 0.1 lb of Sumithrin or PBO per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems.

USE INFORMATION

For use in mosquito adulticiding programs involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf course. AquaANVIL may be applied over agricultural areas for the control of adult mosquitoes within or adjacent to these areas.

For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Application in calm air conditions is to be avoided. Apply only when wind speed is greater than or equal to 1 mph. Air temperature should be greater than 50 °F when conducting all types of applications.

SPRAY DROPLET SIZE DETERMINATION

Ground-based, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND U.L.V. APPLICATION

Apply AquaANVIL undiluted at a flow rate of 1.1 to 3.3 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). Under normal residential conditions a flow rate of 2.2 fluid ounces per minute is recommended. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.0012 to 0.0036 pounds of Sumithrin and piperonyl butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use high flow rate in heavy vegetation or when populations are high.

AquaANVIL may also be diluted with water and applied so as not to exceed 0.0036 lbs of each a.i., Sumithrin and PBO per acre as shown in the dilutions tables on this label. If an alternative dilution rate is used, adjust the flow rate accordingly, provided the droplet size and spectrum remains within label specifications.

Rates to use AquaANVIL Undiluted for Mosquito Control:

Pounds a.i./Acre		AquaANVIL Fl.oz/Acre	Application Rates in Fl.oz./Minute at truck speeds of:			
Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	0.0036	0.54	1.6	3.3	4.9	6.6
0.0024	0.0024	0.36	1.1	2.2	3.3	4.4
0.0012	0.0012	0.18	0.5	1.1	1.6	2.2

Rates to use diluted (1 to 1 dilution ratio) AquaANVIL (Finished spray is a 5% by weight Sumithrin and contains 0.424 lbs of each a.i., Sumithrin and PBO per gallon)

Pounds a.i./Acre		Finished Spray Fl.oz/ Acre	Application Rates in Fl.oz./Minute at truck speeds of:			
Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	0.0036	1.09	3.3	6.6	9.9	13.2
0.0024	0.0024	0.73	2.2	4.4	6.6	8.8
0.0012	0.0012	0.36	1.1	2.2	3.3	4.4

Rates to use diluted (1 to 2 dilution ratio) AquaANVIL (Finished spray is a 3.3% by weight Sumithrin and contains 0.282 lbs of each a.i., Sumithrin and PBO per gallon)

Pounds a.i./Acre		Finished Spray Fl.oz/ Acre	Application Rates in Fl.oz./Minute at truck speeds of:			
Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	0.0036	1.63	4.9	9.9	14.8	19.8
0.0024	0.0024	1.09	3.3	6.6	9.9	13.2
0.0012	0.0012	0.54	1.6	3.3	4.9	6.6

AquaANVIL may also be applied with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD. Use 0.18 to 0.54 fl.oz. of the undiluted spray per acre (equal to 0.0012 to 0.0036 lb ai/acre) as a 50 ft (15.2 m) swath while walking at a speed of 2 mph (3.2 kph). Dilute only with water if dilution is preferred. Do not exceed 0.54 fl.oz. of the undiluted spray per acre. Do NOT use portable backpack equipment for application in enclosed spaces.

AERIAL APPLICATION

AquaANVIL may be applied at rates of 0.18 to 0.54 fluid ounces AquaANVIL per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. AquaANVIL may also be diluted with water and applied by aerial ULV equipment so long as 0.54 fluid ounces per acre of AquaANVIL is not exceeded.

RELEASE HEIGHT FOR AERIAL:

Fixed wing: Apply using a nozzle height of no less than 100 feet above the ground or canopy.

Rotary wing: Apply using a nozzle height of no less than 75 feet above the ground or canopy.

Reference the dilution charts on this label. If an alternative dilution rate is used, adjust the flow rate accordingly, provided the droplet size and spectrum remains within label specifications.

STORAGE & DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

[For 2.5-gallon Jugs]: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For refillable drums & totes]: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

AquaANVIL™ is a trademark of Clarke Mosquito Control Products, Inc.

Sumithrin™ is a trademark of Sumitomo Company Ltd.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, TOTE
LOT NO.: Marked on Container Label

EPA REG. NO. 1021-1807-8329
EPA EST. NO. 8329-IL-001



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 1 of 7

SECTION 1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Identifier

Formulation Identifier: AquaANVIL® Water-based Adulticide

EPA Registration Number: 1021-1807-8329

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of adult mosquitoes.

Uses advised against: See product label for use restrictions

Details of the Supplier

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712 or (952) 852-9509

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800)-424-9300

International: (703) 527-3887

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Acute Toxicity – Inhalation (dusts/Mists): Category 4

Pictogram:



Signal Word: Warning

Hazard Statements: Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray
Use only outdoors or in a well ventilated area

RESPONSE: IF INHALED: Remove victim to fresh air and keep at rest in a position for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell

STORAGE: Store in a well-ventilated place. Keep cool

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 2 of 7

Comments: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1), and the GHS

SECTION 3. Composition/Information on Ingredients

Components

Substance Name	CAS No.	Concentration % w/w
SUMITHRIN® (d-Phenothrin)	26002-80-2	10
Piperonyl Butoxide (PBO)	51-03-6	10

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

Description of First Aid Measures

- Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.
- Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.
- Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Indication of Immediate Medical Attention and Special Treatment

Notes to Physician: For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

SECTION 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

Explosion data:

Sensitivity to Mechanical Impact: None

Sensitivity to static discharge: None

Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special Procedures: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 3 of 7

SECTION 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and Material for Containment and Cleaning Up

Methods for containment: Prevent further leakage of spillage if safe to do so. Move containers from spill area.

Small spill: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Large Spill: Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. Handling and Storage

Precautions for Safe Handling

Protective measures: Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. For more information, see product label.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

Control Parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Tight sealing safety goggles and face shield.

Skin Protection: Wear a long-sleeved shirt, long pants, socks and shoes.

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 4 of 7

SECTION 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Milky white
Color (Gardner):	No information available
Odor:	Sweet
Odor Threshold:	No information available
pH:	4.1
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F) (Tag Closed Cup)
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Relative Density:	No information available
Density:	1.016 g/cm ³ @ 20°C
Specific Gravity (Water = 1)	No information
Solubility (Water/Alcohol):	Partially miscible
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Dynamic Viscosity:	16 cPs @ 24.0° C Brookfield
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	10%

SECTION 10. Stability and Reactivity

Reactivity

No data available

Chemical Stability

Stable under recommended normal storage conditions

Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions
Hazardous Polymerization: Hazardous polymerization does not occur

Conditions to avoid Extremes of temperature and direct sunlight

Incompatible materials Not compatible with strong acids and bases. Not compatible with oxidizing agents.

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 5 of 7

SECTION 11. Toxicological information

Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation

Information on Toxicological Effects

Acute Toxicity / Effects

Assessment of acute toxicity: Slightly toxic after ingestion. Slightly toxic after short-term inhalation. Slightly toxic after short term skin contact.

Oral, (Rat) LD ₅₀	> 5,000 mg/kg
Dermal, (Rabbit) LD ₅₀	> 5,000 mg/kg
Inhalation, Rat LC ₅₀	> 2.0 mg/l (four hours)
Skin Corrosion/Irritation:	Slight irritation - Irritation Index = 0.4
Serious Eye Damage/Irritation:	Irritation clearing in 48 hours
Skin Sensitization:	Negative – (guinea pig)

Conditions aggravated by exposure: None known

Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.

Reproductive Effects: This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.

STOT – Single exposure Not classified

STOT – Repeated exposure Not classified

SECTION 12. Ecological Information

Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO

Toxicity to Fish: d-Phenothrin 96-hr Acute LC₅₀ 16.7 µg/L (rainbow trout), 15.8 µg/L (bluegill sunfish)
PBO: 96-hour Acute LC₅₀ 6/12 ppm (rainbow trout)

Toxicity to Aquatic Invertebrates: d-Phenothrin 48-hr LC₅₀ 4.4 µg/L *Daphnia magna*
d-Phenothrin 480hr LC₅₀ 0.025 µg/L *Mysidopsis bahia*
PBO: 96-hr LC₅₀ 0.49 ppm, *Americamysis bahia*

Toxicity to Plants: No data available

Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 6 of 7

Biodegradability:	Not readily biodegradable (by OECD criteria)
Bioconcentration Factor:	d-Phenothrin: 592 (edible), 4,000 (non-edible) PBO: 2, 175
Log Kow:	d-Phenothrin: 6 PBO: 4.95
Depuration:	d-Phenothrin, PBO: 2-4 days
Mobility in Soil:	d-Phenothrin has low water solubility and binds tightly to soil. Based on these properties, d-phenothrin is relatively immobile in soil and its potential to contaminate groundwater is low. PBO is not very soluble in water and adheres moderately to soil with organic matter.

SECTION 13. Disposal Considerations

Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

DOT (US) Not regulated

IMDG (Vessel)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

ICAO/IATA (Air transport)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

SECTION 15. Regulatory Information

Difference between SDS and EPA (FIFRA) Pesticide Label: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

Precautionary Statements: **Hazards to Humans and Domestic Animals:** CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE): Mixers, loaders, applicators and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.



SAFETY DATA SHEET

AquaANVIL™ Water-based Adulticide

Effective Date: 1 June 2015

v.01

Page 7 of 7

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies of pesticide incidents, call 1-888-740-8712.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Other Federal regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312 None

Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
26002-80-2	d-phenothrin	10.0
51-03-6	piperonyl butoxide	10.0

CERCLA RQ: None

US California Proposition 65: Not listed

STATE RIGHT-TO-KNOW: National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NFPA	Health Hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties –
HMIS	Health Hazards 1	Flammability 1	Physical Hazards 0	Personal Protection X

™ AquaANVIL is a Trademark of Clarke Mosquito Control Products, Inc.

© Sumithrin is a Registered Trademark of Sumitomo Company Ltd.

End of document



AquaDUET®

Water-Based Dual-Action Adulticide

A water based dual-action Adulticide for Effective Control of Adult Mosquitoes, Gnats, Non-biting Midges, Biting and Non-biting Flies in Outdoor Residential and Recreational Areas.

ACTIVE INGREDIENTS:

Prallethrin: (RS)-2-methyl-4-oxo-3-(2-propynyl) cyclopent-2-enyl- (1RS)-cis,trans-chrysanthematate	1.00%
Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2- methylprop-1-enyl) cyclopropanecarboxylate	5.00%
* Piperonyl Butoxide	5.00%
OTHER INGREDIENTS	89.00%
	100.00%

Contains 0.084 pounds of Prallethrin/Gallon, 0.422 pounds of Sumithrin®/Gallon and 0.422 pounds of Technical Piperonyl Butoxide/Gallon

*(butylcarbonyl)(6-propylpiperonyl) ether and related compounds

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUCION AL USUARIO: Si usted no lee inglés, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID

IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
-------------	---

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, and other handlers must wear the following: long-sleeved shirt, long pants, shoes and socks. See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease

causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or by persons under their direct supervision.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

Do not treat a site with more than 0.0036 lb of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs prallethrin per acre in a single application or in any 24-hour period. Do not apply more than 0.0108 lb each of Sumithrin and piperonyl butoxide and 0.0022 lb prallethrin to the same treatment area in a 7 day period. Do not apply more than 0.0216 lb each of Sumithrin and piperonyl butoxide and 0.0043 lb prallethrin to the same treatment area in 1 month. Do not exceed 0.1 lb of Sumithrin or piperonyl butoxide or 0.02 lb prallethrin per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems.

USE INFORMATION

AQUADUET is approved for application as an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential, outdoor urban, industrial, and recreational areas where adult mosquitoes or other listed flying pests are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

AQUADUET may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

AQUADUET cannot be mixed with oil. Use only clean water. SHAKE OR AGITATE THOROUGHLY BEFORE DILUTING. Diluted product must be thoroughly agitated before use. Avoid storing excess formulation in equipment.

SPRAY DROPLET SIZE DETERMINATION

Ground-based Application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 um). The effects of flight speed and, for non-rotary atomizers, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND U.L.V. APPLICATION

To control Mosquitoes and other listed insects, apply AQUADUET at a flow rate of 2.2 to 6.6 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Certain mosquito species, such as *Aedes aegypti* and *Aedes albopictus*, are most active during the day. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than or equal to 1 mph. All types of applications should be conducted at temperatures above 50 °F. Under normal residential conditions a flow rate of 4.0 fluid ounces per minute is recommended. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00024 to 0.00072 pounds of Prallethrin and 0.0012 to 0.0036 pounds of Sumithrin® and Piperonyl Butoxide per acre.

Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high. AQUADUET may also be diluted with water and applied by GROUND ULV equipment so long as 1.09 fluid ounces per acre of AQUADUET is not exceeded. Refer to the tables on following panel for flow rate calculations for diluted end-use formulations of AQUADUET. If an alternate dilution rate is used, adjust the flow rate accordingly, provided the droplet

size and spectrum remain within label specifications. Use the following table to calculate application rates:

Pounds a.i./Acre			AQUADUET Fl.oz./Acre	Flow Rates in fluid oz./minute at truck speeds of:			
Sumithrin®	PBO	Prallethrin		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	0.0036	0.00072	1.09	3.3	6.6	9.9	13.2
0.0022	0.0022	0.00044	0.67	2.0	4.9	6.1	8.1
0.0018	0.0018	0.00036	0.55	1.7	3.3	5.0	6.6
0.0012	0.0012	0.00024	0.36	1.1	2.2	3.3	4.4

Urban ULV Mosquito Control: AQUADUET may be applied for control of resting or flying adult mosquitoes in outdoor urban and industrial areas such as rail yards, waste yards, junkyards, tire dumps, and other outdoor areas where adult mosquitoes may be found. Apply using mechanical-foggers, or truck-mounted ULV equipment, or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0036 lb of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period.

AERIAL APPLICATION

AQUADUET may be applied at rates of 0.36 to 1.09 fluid ounces of AQUADUET per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. AQUADUET may also be diluted with water and applied by aerial ULV equipment so long as 1.09 fluid ounces per acre of AQUADUET is not exceeded. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy, unless specifically approved by the state or tribe based on public health needs. When making aerial application at an altitude of less than 100 feet, apply only when wind speed at altitude is greater than or equal to 5 mph. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

DILUTION

Reference the dilution charts on this label. If an alternative dilution rate is used, adjust the flow rate accordingly, provided the droplet size and spectrum remains within label specifications.

For a 4% Sumithrin product, dilute 1 gallon AQUADUET with 0.25 gallon water. Finished spray

contains 0.338 lbs Sumithrin & PBO and 0.067 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	1.36	4.1	8.3	12.4	16.5
Recommended	0.00044	0.0022	0.0022	0.83	2.5	5.1	7.6	10.1
Light Population	0.00036	0.0018	0.0018	0.68	2.1	4.1	6.2	8.3
	0.00024	0.0012	0.0012	0.45	1.4	2.8	4.1	5.5

For a 2.5% Sumithrin product, dilute 1 gallon AQUADUET with 1 gallon water. Finished spray contains 0.211 lbs Sumithrin & PBO and 0.042 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	2.18	6.6	13.2	19.9	26.5
Recommended	0.00044	0.0022	0.0022	1.33	4.0	8.1	12.1	16.2
Light Population	0.00036	0.0018	0.0018	1.09	3.3	6.6	9.9	13.2
	0.00024	0.0012	0.0012	0.73	2.2	4.4	6.6	8.8

For a 2% Sumithrin product, dilute 1 gallon AQUADUET with 1.5 gallons water. Finished spray contains 0.169 lbs Sumithrin & PBO and 0.034 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	2.73	8.3	16.5	24.8	33.1
Recommended	0.00044	0.0022	0.0022	1.67	5.1	10.1	15.2	20.2
Light Population	0.00036	0.0018	0.0018	1.36	4.1	8.3	12.4	16.5
	0.00024	0.0012	0.0012	0.91	2.8	5.5	8.3	11.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING & DISPOSAL:

For Nonrefillable Containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONTAINERS 5 GALLON CAPACITY OR SMALLER: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

CONTAINERS LARGER THAN 5 GALLON CAPACITY: Empty the remaining contents into the application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

For Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

AQUADUET® - Registered Trademark of Clarke Mosquito Control Products, Inc.

Sumithrin® - Registered Trademark of Sumitomo Chemical Company, Ltd.

Manufactured For:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172 U.S.A.

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, TOTE

Lot No.: Marked on Container Label

EPA Reg. No.: 1021-2562-8329

EPA Est. No.: _____



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 1 of 7

SECTION 1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Identifier

Formulation Identifier: AQUADUET™ Water-based Adulticide

EPA Registration Number: 1021-2562-8329

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of adult mosquitoes.

Uses advised against: See product label for use restrictions

Details of the Supplier

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712 or (952) 852-9509

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800)-424-9300

International: (703) 527-3887

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Acute Toxicity – Inhalation (dusts/Mists): Category 4

Pictogram:



Signal Word: Warning

Hazard Statements: Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray
Use only outdoors or in a well ventilated area

RESPONSE: IF INHALED: Remove victim to fresh air and keep at rest in a position for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE: Store in a well-ventilated place. Keep cool.

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable

Comments: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1), and the GHS



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 2 of 7

SECTION 3. Composition/Information on Ingredients

Components

Substance Name	CAS No.	Concentration % w/w
ETOC® (Prallethrin)	23031-36-9	1.0
SUMITHRIN® (d-Phenothrin)	26002-80-2	5.0
Piperonyl Butoxide	51-03-6	5.0

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

Description of First Aid Measures

- Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Ingestion:** If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.
- Inhalation:** Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Indication of Immediate Medical Attention and Special Treatment

Note to Physician: For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

SECTION 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

Explosion data:

Sensitivity to Mechanical Impact: None

Sensitivity to static discharge: None

Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special Procedures: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 3 of 7

SECTION 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and Material for Containment and Cleaning Up

Methods for containment: Prevent further leakage of spillage if safe to do so. Move containers from spill area.

Small spill: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Large Spill: Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. Handling and Storage

Precautions for Safe Handling

Protective measures: Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. For more information, see product label.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

Control Parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Tight sealing safety goggles or face shield.

Skin Protection: Wear a long-sleeved shirt, long pants, socks and shoes.

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

SECTION 9. Physical and Chemical Properties



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 4 of 7

Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color:	Milky white
Odor:	Sweet
Odor Threshold:	No information available
pH:	5.3 @ 5% in H ₂ O
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F) (Tag Closed Cup)
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Relative Density:	No information available
Specific Gravity (Water = 1)	No information available
Density:	1.012 g/cm ³ @ 20° C
Solubility:	No information available
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Dynamic Viscosity:	11.2 cPs @ 22.8° C Brookfield
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	10%

SECTION 10. Stability and Reactivity

Reactivity

No data available

Chemical Stability

Stable under recommended normal storage conditions

Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Hazardous polymerization does not occur

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Not compatible with strong acids and bases. Not compatible with oxidizing agents.

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

SECTION 11. Toxicological information

Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 5 of 7

Information on Toxicological Effects

Acute Toxicity / Effects

Assessment of acute toxicity: Slightly toxic after ingestion. Slightly toxic after short-term inhalation. Slightly toxic after short term skin contact.

Oral, (Rat) LD ₅₀	> 5,000 mg/kg
Dermal, (Rabbit) LD ₅₀	> 5,000 mg/kg
Inhalation, Rat LC ₅₀	> 2.09 mg/l (four hours)
Skin Corrosion/Irritation:	Slight irritation at 72 hours - Irritation Index = 0.9
Serious Eye Damage/Irritation:	Irritation clearing in 24 hours
Skin Sensitization:	Negative – (guinea pig)

Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity	This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.
Reproductive Effects:	This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.
STOT – Single exposure	Not classified
STOT – Repeated exposure	Not classified

SECTION 12. Ecological Information

Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO

Toxicity to Fish:	d-Phenothrin 96-hr Acute LC ₅₀ 16.7 µg/L (rainbow trout), 15.8 µg/L (bluegill sunfish) PBO: 96-hour Acute LC ₅₀ 6/12 ppm (rainbow trout) Prallethrin LC ₅₀ 0.012 mg/L (rainbow trout)
Toxicity to Aquatic Invertebrates:	d-Phenothrin 48-hr LC ₅₀ 4.4 µg/L <i>Daphnia magna</i> d-Phenothrin 48-hr LC ₅₀ 0.025 µg/L <i>Mysidopsis bahia</i> PBO: 96-hr LC ₅₀ 0.49 ppm, <i>Americamysis bahia</i> Prallethrin 48-hr EC ₅₀ 0.0062 mg/L <i>Daphnia</i>
Toxicity to Plants:	No data available

Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO

Biodegradability:	Not readily biodegradable (by OECD criteria)
Bioconcentration Factor:	d-Phenothrin: 592 (edible), 4,000 (non-edible) PBO: 2, 175 Prallethrin: no data available



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 6 of 7

Log Kow:	d-Phenothrin: 6 PBO: 4.95 Prallethrin: 4.49
Depuration:	d-Phenothrin, PBO: 2-4 days
Mobility in Soil:	d-Phenothrin has low water solubility and binds tightly to soil. Based on these properties, d-phenothrin is relatively immobile in soil and its potential to contaminate groundwater is low. PBO is not very soluble in water and adheres moderately to soil with organic matter. Prallethrin is not very water soluble and adheres moderately with organic material. The hazard for prallethrin to move off the site of application with rain or irrigation is rated moderate.

SECTION 13. Disposal Considerations

Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

DOT (US)

PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

OTHER SHIPPING INFORMATION: This material is not regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (i.e., less than 119 Gallons / 450 Liters).

When shipping in Bulk-quantities (i.e., more than 119 Gallons / 450 Liters), please contact Clarke for the proper shipping description.

IMDG (Vessel)

SHIPPING NAME: Not Available

ICAO/IATA (Air transport)

SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

Precautionary Statements: Hazards to Humans and Domestic Animals: CAUTION. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Mixers, loaders, applicators and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.



SAFETY DATA SHEET

AQUADUET™ Water-based Adulticide

Effective Date: 1 June 2015

Page 7 of 7

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies of pesticide incidents, call 1-888-740-8712.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: None

Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
26002-80-2	d-phenothrin	5.0
51-03-6	piperonyl butoxide	5.0

CERCLA RQ:

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

U.S. California Proposition 65: This product does not contain any Proposition 65 chemicals

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NFPA	Health Hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties –
HMIS	Health Hazards 1	Flammability 1	Physical Hazards 0	Personal Protection X

™ AquaDUET is a Trademark of Clarke Mosquito Control Products, Inc.

© Sumithrin is a Registered Trademark of Sumitomo Company Ltd.

© ETOC is a Registered Trademark of Sumitomo Company Ltd.

End of document



AquaHALT™ Water-Based Adulticide

A water based formulation to kill mosquitoes in Outdoor Residential, Recreational and other outdoor areas; and for use in and around animal areas and quarters for control of flies, mosquitoes, small flying moths, and other listed insects.

For Mosquito Adulticiding: For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

ACTIVE INGREDIENTS:	
Pyrethrins	5.00%
*Piperonyl Butoxide	25.00%
OTHER INGREDIENTS	70.00%
	100.00%

Contains 0.422 pounds of Pyrethrins and 2.11 pounds of piperonyl butoxide per gallon.

Contains no aromatic or aliphatic petroleum distillates.

*(butylcarbityl) (6-propylpiperonyl) ether and related compounds.

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product including health concerns, medical emergencies, or pesticide concerns, you may call at 1-888-740-8712.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, and other handlers must wear the following: -long-sleeved shirt, -long pants, -shoes and socks.

In addition to the above PPE, applicators using a high pressure hand wand in an enclosed area must wear at least a NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

In addition to the above PPE, applicators using hand held foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any N, R, P or HE filter.

See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS:

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and other aquatic invertebrates. When applying as wide area mosquito adulticide and before making the first application of the season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health as determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
USE RESTRICTIONS:

- IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.
- Read all directions completely before use and follow all directions and precautions when using product.
- Do not use in aircraft cabins.
- Do not make applications during rain.
- Except when applying as wide area mosquito adulticide and except when applying directly to beef cattle, dairy cattle and horses, do not enter or allow others to enter until vapors, mists, and aerosols have dispersed, and the treated area has been thoroughly ventilated and directed spray applications have dried.
- Except when applying as a wide area mosquito adulticide, do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Except when applying as a wide area mosquito adulticide, only protected handlers may be in the area during application.
- When applying as an indoor space spray in animal quarters (see directions for use), do not remain in treated area. Exit area immediately and remain outside the treated area until aerosols, vapors, and/or mists have dispersed. Remove or cover exposed food and drinking water before application.
- When used in dairy barns or facilities: Close milk bulk lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- This product cannot be mixed with oil. Use only clean water.
- Not for use in outdoor residential misting systems (indoor or outdoor) or outdoor metered release systems.

SHAKE OR AGITATE THOROUGHLY BEFORE DILUTING. Diluted product must be thoroughly agitated before use. Avoid storing excess formulation in equipment.

OUTDOOR USE: WIDE-AREA MOSQUITO CONTROL

The maximum application rate for wide-area mosquito adulticide application is 0.76 fluid ounces AquaHALT (0.0025 lbs pyrethrins and 0.0125 lbs piperonyl butoxide) per acre. When targeting *Aedes taeniorhynchus* and other difficult species, applications may be made up to 2.43 fluid ounces AquaHALT (0.008 lbs pyrethrins and 0.04 lbs piperonyl butoxide) per acre per day.

Do not apply more than 0.2 lbs of pyrethrins/acre/year or 1.0 lbs PBO/acre/year in any treated area. When rotating this product with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per site per year. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

AquaHALT may be used undiluted or diluted with water and applied as an ultra low volume (ULV) non-thermal aerosol (cold fog) or in suitable mechanical spray equipment. Do not apply this product with thermal fogging equipment. Do not exceed the maximum specified dosage rate (pounds of active ingredient per acre). AquaHALT may be used to control adult mosquitoes, flies and gnats in mosquito control programs including residential, industrial, recreational, and agricultural areas, vegetation surrounding swamps, marshes, overgrown waste areas, roadsides and pastures where adult mosquitoes occur. For best results treat when mosquitoes are most active. Application during the cool hours of the night or early morning is usually preferable, with a minimum application temperature of 50°F.

Both ground and aerial applications should be made when meteorological conditions are conducive to keeping the spray cloud close to the ground, such as when an air temperature inversion is present. Apply only when ground wind speed is greater than or equal to 1 MPH.

Spray Droplet Size Determination

Ground-Based, Wide Area Mosquito Abatement Application: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Wide Area Mosquito Abatement Application: Spray equipment must be adjusted so that the volume median diameter is less than 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 µm). The effects of flight speed, and for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Non-Thermal Aerosol (Cold Fog) Application

To control mosquitoes, flies and gnats, apply AquaHALT using any standard ULV ground applicator capable of producing a non-thermal aerosol spray cloud with appropriately sized droplets. Apply the product undiluted at a flow rate of 1.7 to 4.6 fluid ounces per minute at an average vehicle speed of 10 MPH. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.0009 to 0.0025 pounds of pyrethrins and 0.0045 to 0.0125 pounds of piperonyl butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high.

AquaHALT may also be applied with non-thermal, portable, motorized backpack or handheld equipment adjusted to deliver ULV particles of less than 100 microns VMD. Dilute only with water if dilution is preferred. Use 0.27 to 0.76 fluid ounces of the undiluted spray per acre as a 50 ft. swath while walking at a speed of 2 MPH.

Urban ULV Mosquito Control: For control of resting or flying adult mosquitoes in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings. Apply using mechanical foggers, hand-held or truck-mounted ULV equipment or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0025 pounds Pyrethrins per acre per day.

Aerial Application

Aerial applications may be done by suitable aerial ULV equipment. Flow rate and swath width should be set so as to achieve 0.27 to 0.76 fluid ounces of undiluted AquaHALT per acre. Application should be made at an altitude of less than 300 feet (91 meters) with a swath width from 200 to 500 feet depending on the terrain and weather conditions. The recommended airspeed for fixed wing aircraft with flat fan nozzles is from 120 to 160 MPH. For rotary wing aircraft equipped with rotary nozzles, apply at a sufficient airspeed to deliver the appropriate amount of a.i. per acre. Examples of application systems include: FLAT FAN NOZZLES: Conventional agricultural nozzles (standard flat fan) may not produce droplets within the appropriate size spectrum. If these nozzles are used, they should be oriented 135° forward and size limited to a spray tip number (representing spray volume) according to aircraft application speed. For example, for application speeds between 60-170 MPH, use nozzle tips numbering 0005 to 001 (0.05 to 0.1 gallons per minute at 40 psi). For application speeds in excess of 170 MPH, nozzle tip numbers up to 004 (0.4 gpm at 40 psi) may be used. ROTARY ATOMIZERS: Rotary atomizers should be set to deliver at a maximum RPM using the cage mesh or plastic sleeve available from the manufacturer to produce the appropriate size spectrum. Other ULV application systems producing droplets within specifications may be used as long as 0.76 fluid ounces of AquaHALT per acre is not exceeded.

Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs.

AquaHALT may also be diluted with water and applied so as not to exceed the maximum pounds of active ingredient per acre as shown in the tables below. If an alternative dilution rate is used, adjust the flow rate accordingly, provided the droplet size and spectrum remains within label specifications.

INDOOR USE AREAS

For use in and around: Animal Areas and Quarters, Dairy and Livestock Barns, Horse Stables and Barns, Poultry Houses, Swine Houses, and other similar areas.

Animal Quarter Use: For use in and around listed use areas to kill accessible stages of Brown Dog Ticks, Clover Mites, Cockroaches, Crickets, Deer Flies, Earwigs, Face Flies, Firebrats,

Rates to use AquaHALT Undiluted for Mosquito Control

Pounds a.i./Acre		AquaHALT	Flow rates in fluid oz./minute at truck speeds of:			
Pyrethrins	PBO	Fl. oz./Acre	5 MPH	10 MPH	15 MPH	20 MPH
0.0025	0.0125	0.76	2.3	4.6	6.9	9.2
0.0018	0.0090	0.55	1.7	3.3	5.0	6.6
0.0009	0.0045	0.27	0.8	1.7	2.5	3.3

Rates to use a 2.5% product (1 to 1 dilution ratio) AquaHALT for Mosquito Control

Pounds a.i./Acre		AquaHALT	Flow rates in fluid oz./minute at truck speeds of:			
Pyrethrins	PBO	Fl. oz./Acre	5 MPH	10 MPH	15 MPH	20 MPH
0.0025	0.0125	1.52	4.6	9.2	13.8	18.4
0.0018	0.0090	1.09	3.3	6.6	9.9	13.2
0.0009	0.0045	0.55	1.7	3.3	5.0	6.6

Rates to use a 1% product (1 to 4 dilution ratio) AquaHALT for Mosquito Control

Pounds a.i./Acre		AquaHALT	Flow rates in fluid oz./minute at truck speeds of:		
Pyrethrins	PBO	Fl. oz./Acre	5 MPH	10 MPH	15 MPH
0.0025	0.0125	3.79	11.5	23.0	34.5
0.0018	0.0090	2.73	8.3	16.5	24.8
0.0009	0.0045	1.36	4.1	8.3	12.4

Fleas, Flies, Horn Flies, Hornets, Mosquitoes, Silverfish, Small Flying Moths, Spiders, Stable Flies, Ticks, Wasps, Yellow Jackets, Fannia Flies, and Darkling Beetles. Apply as a space spray in conventional ULV cold aerosol generator or fogger adjusted to deliver aerosol size droplets. Whenever possible perform space spray application in the late evening when insects are at rest. Apply undiluted at the rate of 0.25 - 1.0 fluid ounces per 1,000 cubic feet of space above the animals. This concentrate may also be diluted with water at the rate of one (1) part concentrate to 10 parts water and applied at the rate of 1 - 2 fluid ounces per 1,000 cubic feet of space above the animals. Direct spray toward the upper portions of the enclosure, above the animals, filling the room with mist or fog. Vacate treated area and thoroughly ventilate before reoccupying.

To kill Bedbugs and Mites in poultry houses, prepare a dilution of one (1) part concentrate to 25 parts water and spray crevices of roost poles and cracks in walls and nests where the Bedbugs and Mites hide.

To kill Poultry Lice, spray roosts, walls and nests or cages thoroughly with a dilution of one (1) part concentrate with 25 parts water, followed by spraying over the birds with a fine mist.

For Use On Animals: To protect beef and dairy cattle and horses from Horn Flies, Houseflies, Mosquitoes, Gnats, dilute 1 part concentrate with 49 parts water, mix well and apply a light mist sufficient to wet the tips of the hair. To kill Stable Flies, Horse Flies, and Deer Flies on animals apply two (2) fluid ounces per adult animal in an amount sufficient to wet the hair but not to soak the hide. Repeat treatment once or twice daily or at intervals to give continued protection. To kill the motile stages of Blood Sucking Lice on beef and dairy cattle and other listed animals, apply the spray to thoroughly wet the hair. Use two (2) fluid ounces or less per animal and repeat every 2 to 3 weeks as required.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Keep this product in its tightly closed original container when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

AquaHALT™ is a registered Trademark of Clarke Mosquito Control Products, Inc.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172 U.S.A.

FOR MORE INFORMATION CALL: 1-800-323-5727

EPA Reg. No. 1021-1803-8329

Net Contents: _____

EPA Est. No. _____

Lot No.: _____



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 1 of 8

SECTION 1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Identifier

Formulation Identifier: AquaHALT™ Water-based Adulticide

EPA Registration Number: 1021-1803-8329

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Pesticide, Emulsifiable Insecticide for control of adult mosquitoes, Pyrethrins.

Uses advised against: See product label for use restrictions

Details of the Supplier

Clarke Mosquito Control Products, Inc.

675 Sidwell Court

St. Charles, IL 60174 U.S.A.

+1 (630) 894-2000

Email: Clarke@clarke.com

Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712 or (952) 852-9509

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800)-424-9300

International: (703) 527-3887

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Acute Toxicity – Oral: Category 4

Acute Toxicity – Inhalation (dusts/Mists): Category 4

Pictogram:



Signal Word: Warning

Hazard Statements: Harmful if swallowed

Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray.

Wash hands thoroughly after handling.

Do not eat, drink, or smoke when using this product.

Use only outdoors or in a well ventilated area.

RESPONSE: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

IF INHALED: Remove victim to fresh air and keep at rest in a position for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 2 of 8

STORAGE: Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable

Comments: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1), and the GHS

SECTION 3. Composition/Information on Ingredients

Components

Substance Name	CAS No.	Concentration % w/w
Pyrethrins	8003-34-7	5.0
Piperonyl Butoxide	51-03-6	25.0

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

Description of First Aid Measures

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Indication of Immediate Medical Attention and Special Treatment

Note to Physician: For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

SECTION 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

Explosion data:

Sensitivity to Mechanical Impact: None

Sensitivity to static discharge: None

Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 3 of 8

Special Procedures: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and Material for Containment and Cleaning Up

Methods for containment: Prevent further leakage of spillage if safe to do so. Move containers from spill area.

Small spill: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Large Spill: Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. Handling and Storage

Precautions for Safe Handling

Protective measures: Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. For more information, see product label.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

Control Parameters

Component Name	CAS No.	List	Type	Value
Pyrethrins	8003-34-7	OSHA & ACGIH	PEL/TLV	5 mg/m ³

Engineering Controls: Ventilate treatment area thoroughly before re-entry.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Take prudent precautions to avoid contact with eyes. Wear tight sealing safety goggles or face shield.

Skin Protection: Wear a long-sleeved shirt, long pants, socks and shoes.



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 4 of 8

Hand Protection:	It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.
Respiratory Protection:	In case of insufficient ventilation, wear suitable respiratory equipment. See product label for specific uses requiring respiratory equipment. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection with any N, R, P, or HE filter should be worn.

SECTION 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color:	Milky white
Odor:	Slightly sweet smell
Odor Threshold:	No information available
pH:	3.9
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F) (Tag Closed Cup)
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Relative Density:	No information available
Specific Gravity (Water = 1)	1.012 at 20 °C
Density:	1.012 g/cm ³ @ 20° C
Solubility:	Partially miscible in water
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Dynamic Viscosity:	25.67 cPs @ 23° C Brookfield
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	<4.0%

SECTION 10. Stability and Reactivity

Reactivity

No data available

Chemical Stability

Stable under recommended normal storage conditions

Possibility of Hazardous Reactions

Hazardous Reactions:	None under normal conditions
Hazardous Polymerization:	Hazardous polymerization does not occur

Conditions to avoid Extremes of temperature and direct sunlight

Incompatible materials Not compatible with strong acids and bases. Not compatible with oxidizing agents.



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 5 of 8

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

SECTION 11. Toxicological information

Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation

Information on Toxicological Effects

Acute Toxicity / Effects

Assessment of acute toxicity: Moderately toxic after ingestion. Slightly toxic after short-term inhalation. Slightly toxic after short term skin contact. Some or all of the acute toxicity data is bridged from a substantially similar formulation.

Oral, (Rat) LD₅₀ 500 – 5,000 mg/kg

Dermal, (Rabbit) LD₅₀ > 2,000 mg/kg

Inhalation, Rat LC₅₀ > 2.03 mg/l (4 hours)

Skin Corrosion/Irritation: Slight irritation at 72 hours - Irritation Index = 1.4

Serious Eye Damage/Irritation: Irritation clearing in 24 hours

Skin Sensitization: Negative – (guinea pig)

Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Pyrethrins: Slightly elevated incidences of benign tumors of the thyroid and liver were seen in rats following lifetime administration of high doses of Pyrethrins. Further detailed scientific studies into the mode of action responsible for these effects show that:

- 1) Because of biological species differences, the rat thyroid tumors are not relevant to humans, and
- 2) The rat liver tumors occur in animals only at doses greatly exceeding human exposure levels and that cause cell proliferation (mitogenesis)

Based on these data, the US EPA has classified Pyrethrins as "Not Likely to be Carcinogenic to Humans" at doses that do not cause a mitogenic response in the liver/cell proliferation. Thus Pyrethrins can be considered to be non-carcinogenic at exposure levels relevant to human use of Pyrethrins-containing products.

PBO: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.

Reproductive Effects: This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.

STOT – Single exposure Not classified

STOT – Repeated exposure Not classified

SECTION 12. Ecological Information



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 6 of 8

Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO

Toxicity to Fish: Pyrethrins 96-hr Acute LC₅₀ 5.1 µg/L (rainbow trout), 10 µg/L (bluegill sunfish)
PBO: 96-hour Acute LC₅₀ 6.12 ppm (rainbow trout)

Toxicity to Aquatic Invertebrates: Pyrethrins 48-hr EC₅₀ 42 µg/L *Daphnia magna*
PBO: 96-hr LC₅₀ 0.49 ppm, *Americamysis bahia*

Toxicity to Plants: No data available

Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO

Biodegradability: Not readily biodegradable (by OECD criteria)

Bioconcentration Factor: no information available
Natural pyrethrins are highly fat soluble, but are easily degraded and thus do not accumulate in the body

Log Kow: no data available

Mobility in Soil: no information available

SECTION 13. Disposal Considerations

Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

RCRA/EPA Waste Information: This product contains the following RCRA/CERCLA Hazardous wastes/substances:

Component	RCRA ID#	CERCLA RQ
Pyrethrins	N/A	1 lb.

SECTION 14. Transport Information

DOT (US)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S RQ (Pyrethrins)

Hazard Class: 9

Packing Group: III

Marine Pollutant: No

RQ: 1 Lb. (Pyrethrins/Pyrethrum)

Other Shipping Information: This material is not regulated as a hazardous material by the DOT in quantities less than 20 Lbs.

IMDG (Vessel)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S RQ (Pyrethrins)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes, Pyrethrins/Pyrethrum

ICAO/IATA (Air transport)



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015

Page 7 of 8

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S RQ (Pyrethrins)

Hazard Class: 9

Packing Group: III

Marine Pollutant: No

NOTE: This material is not regulated as a hazardous material by IATA/ICAO regulations in quantities less than 20 Lbs.

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

Precautionary Statements: Hazards to Humans and Domestic Animals: CAUTION. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE): Mixers, loaders, applicators and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks.

In addition to the above PPE, applicators using high-pressure hand wand in an enclosed area must wear at least a NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

In addition to the above PPE, applicators using hand held foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any N, R, P or HE filter.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies of pesticide incidents, call 1-888-740-8712.

If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin

or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Acute Health Hazard

Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
51-03-6	piperonyl butoxide	25.0



SAFETY DATA SHEET

AquaHALT™ Water-based Adulticide

Effective Date: 1 June 2015
Page 8 of 8

CERCLA RQ: This product contains the following RCRA/CERCLA Hazardous wastes/substances:
Pyrethrins RQ 1 lb

U.S. California Proposition 65: This product does not contain any Proposition 65 chemicals

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NFPA	Health Hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties –
HMIS	Health Hazards 1	Flammability 1	Physical Hazards 0	Personal Protection X

™ AquaHALT is a Trademark of Clarke Mosquito Control Products, Inc.

End of document



Aqua-Reslin[®]

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577
For **PRODUCT USE** Information Call 1-800-331-2867

FOR USE ONLY BY FEDERAL, STATE, TRIBAL OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION

- A Synergized Permethrin Formulation
- For Effective Adult Mosquito (Including organophosphate resistant species), Midge (biting and non-biting) and Blackfly Control
- For use as a Space Spray by Air and Ground Application to Control Adult Mosquitoes
- Uses Water as a Diluent
- Fast and Effective Control of Adult Mosquitoes
- Provides Quick Knockdown and Effective Control of Mosquitoes, Black Flies, Gnats, Biting and Non-Biting Midges as well as other Biting Flies
- For Aerial or Ground Application
- For Barrier / Surface Application
- A FFAST[™] Formulation
- May be Applied Undiluted or Diluted in Water.
- ULV application provides excellent control at Rates Up to 0.007 Pounds Permethrin Per Acre.

ACTIVE INGREDIENTS:

Permethrin20.0%
 *Piperonyl Butoxide20.0%

OTHER INGREDIENTS:**60.0%

TOTAL: 100.0%

*(butylcarbonyl)(6-propylpiperonyl)ether and related compounds

**Contains Petroleum Distillates

Contains 1.67 pounds of permethrin and 1.67 pounds of piperonyl butoxide per gallon

EPA Reg. No. 432-796

PARA EL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN CAUTION

Net Contents
253 Pounds
(30 Gallons)

SKU# 04196162
05353458E 141014AV2



Adult Mosquitoes



FIRST AID

If swallowed:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for immediate treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.

Note to Physician: Contains petroleum distillates. May pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,

Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers, Chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate.

Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.24(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes, or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate water when disposing of equipment rinsate or wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and / or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL FOR DIRECTIONS

SHAKE OR AGITATE THOROUGHLY BEFORE DILUTING: Diluted product must be thoroughly agitated before use. Avoid prolonged storage of excess formulation in equipment.

NOTICE: This concentrate is for dilution with water only; it can not be diluted in oil.

(continued on back label)



Aqua-Reslin®

(continued from front label)

FOR USE ONLY BY FEDERAL, STATE, TRIBAL, OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY, OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION.

APPLICATION INSTRUCTIONS

Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat a site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Do not make applications during rain. Not for use in metered release systems.

Not for use in outdoor residential misting systems.

AQUA-RESLIN is approved for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational, and other areas where adult mosquitoes and flies are found. The formulation greatly reduces the evaporation rate of water from the droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. AQUA-RESLIN is also approved for application with mist-blowers, backpack sprayers, handheld sprayers, and low pressure hand sprayers for barrier or surface applications. AQUA-RESLIN is used for control of annoyance flies and mosquitoes, mosquitoes and flies of public health or disease vector importance in areas such as but not limited to residential areas, industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies occur. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

This product can be applied to the air column over specific growing crops prior to harvest and range grasses for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can be made where the following crops are present:

Alfalfa, Almonds, Apples, Artichoke, Asparagus, Avocado, Broccoli, Brussel sprouts, Cabbage, Cantaloupe, Cauliflower, Celery, Cherry, Corn (field and pop), Corn (sweet), Eggplant, Filberts (Hazelnuts), Garlic, Horseradish, Lettuce, Onions (dry bulb only), Papayas (FL only), Peaches / Nectarines, Pears, Bell peppers, Pistachios, Potatoes, Soybeans, Spinach, Tomatoes, and Walnuts.

Cucurbit vegetables, including: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes Summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus).

Leafy Vegetables, including: Leafy vegetables (except brassica); Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Rocket), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)).

In the treatment of corrals, feed lots, swine lots, poultry ranges, and zoos cover any exposed drinking water, drinking fountains and animal feed before application.

AQUA-RESLIN provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies.

Spray Droplet Size Determination Ground Equipment:

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (D_v 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (D_v 0.9 < 50µm). Directions from the equipment manufacturer or vendor, pesticide registrant,

or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application made at ≤ 200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (D_v 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (D_v 0.9 < 100 µm). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Apply when wind speed is equal to or greater than 1 mph.

Aerial Application made at >200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (D_v 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (D_v 0.9 < 145 µm). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. All types of applications should be conducted at temperatures above 50°F. Apply when wind speeds are equal to or greater than 1 mph.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. An optimum swath is created when AQUA-RESLIN is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. Application during the cooler hours of the night or early morning is recommended. Apply when wind speed is equal to or greater than 1 mph.

AQUA-RESLIN may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of AQUA-RESLIN, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following table:

Application Rate (lb permethrin/Acre)	Vehicle Speed (MPH)	Flow Rate (Fluid Ounces Per Minute)				
		Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4.5	Diluted 1 + 9
0.0015	10	0.70	1.40	2.10	3.8	7.0
	15	1.05	2.10	3.10	5.7	10.5
	20	1.40	2.80	4.20	7.6	14.0
0.0035	10	1.63	3.25	4.90	8.9	16.3
	15	2.45	4.90	7.30	13.4	24.4
	20	3.25	6.50	9.80	17.9	32.6
0.007	10	3.25	6.50	9.80	17.9	
	15	4.89	9.70	14.60	26.5	
	20	6.53	12.90	19.50	35.4	

Where dense vegetation is present, the use of higher rates and/or slower speeds is recommended.

BACKPACK SPRAYER ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. Dilute AQUA-RESLIN with water and apply at the rate of 8 ounces of finished spray per acre (based on a 50 foot swath, 8 ounces should be applied while walking 870 feet). To apply 0.0035 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 31 parts water and apply at the rate listed above. To apply 0.007 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 15 parts of water and apply at the rate listed above.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies, and biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces, or uninhabited buildings. AQUA-RESLIN may be applied using mechanical fog-

gers, hand-held or truck-mounted ULV equipment, thermal foggers, or other spray equipment suitable for this application. Apply AQUA-RESLIN at rates up to but not exceeding 0.007 pounds permethrin per acre.

AERIAL APPLICATION

AQUA-RESLIN may be applied either diluted or undiluted at rates of 0.0035 to 0.007 pounds permethrin per acre by fixed wing or rotary aircraft that are capable of making a ULV application. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed 0.18 pounds of permethrin per acre) in any given season. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. In order to compensate for windy conditions and ensure drift onto the target area, aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

BARRIER APPLICATIONS: For control and exclusion of resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, industrial areas, golf courses, parks, recreational areas, tire piles, and all public areas where adult mosquitoes may occur. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, storage buildings, empty rail cars, truck transport trailers, abandoned buildings, and other areas where adult mosquitoes find harborage. For application to resting or aggregation surfaces using low pressure hand sprayers or other similar equipment which has demonstrated the capacity to deliver an even distribution of the labeled rate over the desired treatment area, mix 2.8 oz in one gallon of water and apply sufficient spray to dampen surface, approximately 700 - 750 square feet of treated area. For application using backpack mist blower equipment, apply undiluted product at a rate not to exceed 7.7 oz per acre or diluted at a rate not to exceed 0.1 lbs ai per acre. Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas or resting areas where adult mosquitoes or flies may be found. When this product is applied as a barrier application using low pressure hand sprayers, or hydraulic sprayers, do not apply within 100 feet (30 meters) of lakes and streams.

All outdoor applications must be limited to spot or crack and crevice treatments only, except for the following permitted uses:

- Treatment to soil or vegetation around structures;
- Application to lawns, turfs, and other vegetation; and
- Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches, and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.

IN NEW YORK: THIS PRODUCT IS NOT REGISTERED FOR USE IN THE STATE OF NEW YORK. THE STATE OF NEW YORK PROHIBITS DISTRIBUTION, SALE OR USE IN THE STATE OF NEW YORK.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture & Consumer Services.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling:

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons):

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back

(continued)

STORAGE AND DISPOSAL (continued)

and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Bayer (reg'd), the Bayer Cross (reg'd), AQUA-RESLIN®, FFAST™ and Backed by Bayer™ are trademarks of Bayer.



(01)00785740104736

Bayer

**BACKED
by BAYER™**

**04196162
05353466E 141014AV2**

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709



AQUA-RESLIN®

Version 2.0 / USA
102000004847

1/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name AQUA-RESLIN®
Product code (UVP) 05952255
SDS Number 102000004847
EPA Registration No. 432-796

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide
Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577 (24 hours/day)
Product Information Telephone Number 1-800-331-2867
SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Acute toxicity (Oral, Inhalation): Category 4



Signal word: Warning

Hazard statements

Harmful if swallowed or if inhaled.

Precautionary statements

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing mist and spray.
Use only outdoors or in a well-ventilated area.



AQUA-RESLIN®

Version 2.0 / USA
102000004847

2/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
Rinse mouth.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/physician if you feel unwell.
Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Permethrin	52645-53-1	20.00
Piperonyl butoxide	51-03-6	20.00
Naphtha (petroleum), heavy alkylate	64741-65-7	9.50
Fatty alcohol polyglycol ether	9004-98-2	1.35

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard. This product contains a pyrethroid.
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.



AQUA-RESLIN®

Version 2.0 / USA
102000004847

3/11

Revision Date: 02/11/2015
Print Date: 02/11/2015

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO₂), Dry chemical, Foam, Water

Unsuitable None known.

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Fight fire from upwind position. Keep out of smoke. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point > 93 °C

Autoignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Explosivity not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.



AQUA-RESLIN®

Version 2.0 / USA
102000004847

4/11

Revision Date: 02/11/2015
Print Date: 02/11/2015

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Permethrin	52645-53-1	5 mg/m ³ (TWA)	03 2014	ACGIH
Permethrin	52645-53-1	5 mg/m ³ (REL)	2010	NIOSH
Permethrin	52645-53-1	5 mg/m ³ (PEL)	02 2006	OSHA Z1
Permethrin	52645-53-1	5 mg/m ³ (TWA)	1989	OSHA Z1A
Permethrin	52645-53-1	5 mg/m ³ (TWA)	06 2008	TN OEL
Permethrin (Particulate.)	52645-53-1	50ug/m ³ (ST ESL)	02 2013	TX ESL
Permethrin (Particulate.)	52645-53-1	5ug/m ³ (AN ESL)	02 2013	TX ESL
Permethrin	52645-53-1	5 mg/m ³ (TWA PEL)	09 2013	US CA OEL
Permethrin	52645-53-1	10 mg/m ³ (TWA)		OES BCS*
Piperonyl butoxide	51-03-6	500 ppm (TWA)		OES BCS*
Naphtha (petroleum), heavy alkylate	64741-65-7	400 mg/m ³ /100 ppm (REL)	2010	NIOSH
Naphtha (petroleum), heavy	64741-65-7	400 mg/m ³ /100 ppm	02 2006	OSHA Z1



AQUA-RESLIN®

Version 2.0 / USA
102000004847

5/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

alkylate		(PEL)		
Naphtha (petroleum), heavy alkylate	64741-65-7	400 mg/m3/100 ppm (TWA)	1989	OSHA Z1A
Naphtha (petroleum), heavy alkylate	64741-65-7	400 mg/m3/100 ppm (TWA)	06 2008	TN OEL
Naphtha (petroleum), heavy alkylate	64741-65-7	500ppb (ST ESL)	07 2011	TX ESL
Naphtha (petroleum), heavy alkylate	64741-65-7	3000ug/m3 (ST ESL)	07 2011	TX ESL
Naphtha (petroleum), heavy alkylate	64741-65-7	300ug/m3 (AN ESL)	07 2011	TX ESL
Naphtha (petroleum), heavy alkylate	64741-65-7	50ppb (AN ESL)	07 2011	TX ESL
Naphtha (petroleum), heavy alkylate	64741-65-7	1,800 mg/m3/400 ppm (STEL)	09 2013	US CA OEL
Naphtha (petroleum), heavy alkylate	64741-65-7	1,350 mg/m3/300 ppm (TWA PEL)	09 2013	US CA OEL
Fatty alcohol polyglycol ether (Vapor.)	9004-98-2	100ug/m3 (AN ESL)	02 2013	TX ESL
Fatty alcohol polyglycol ether (Vapor.)	9004-98-2	1000ug/m3 (ST ESL)	02 2013	TX ESL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection

Chemical resistant nitrile rubber gloves

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.

Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

white



AQUA-RESLIN®

Version 2.0 / USA
102000004847

6/11

Revision Date: 02/11/2015
Print Date: 02/11/2015

Physical State	Liquid
Odor	characteristic
Odour Threshold	no data available
pH	4.9 - 6.0 at (20 °C)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.02 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	soluble
Minimum Ignition Energy	not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable
Viscosity	135 - 205 cps
Flash point	> 93 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	no data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.



AQUA-RESLIN®

Version 2.0 / USA
102000004847

7/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Inhalation
Immediate Effects
Eye May cause slight irritation.
Skin May cause slight irritation.
Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (rat) 1,000 mg/kg
Acute inhalation toxicity LC50 (male/female combined rat) > 2.87 mg/l
Exposure time: 4 h
Acute dermal toxicity LD50 (rabbit) > 5,000 mg/kg
Skin irritation Slight irritation (rabbit)
Eye irritation Slight irritation (rabbit)
Sensitisation Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Permethrin did not cause specific target organ toxicity in experimental animal studies.
Piperonyl butoxide did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Permethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Piperonyl butoxide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Permethrin caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver, Lungs. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.
Piperonyl butoxide was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Permethrin	52645-53-1	Overall evaluation: 3
Piperonyl butoxide	51-03-6	Overall evaluation: 3

OSHA

None.

Assessment toxicity to reproduction



AQUA-RESLIN®

Version 2.0 / USA
10200004847

8/11

Revision Date: 02/11/2015
Print Date: 02/11/2015

Permethrin did not cause reproductive toxicity in a two-generation study in rats.
Piperonyl butoxide did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Permethrin did not cause developmental toxicity in rats and rabbits.
Piperonyl butoxide did not cause developmental toxicity in rats and rabbits.

Further information

Acute toxicity studies have not been performed on this product as formulated.
The toxicological data are based on the active ingredient.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Poecilia reticulata (guppy)) 0.0076 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient permethrin. LC50 (Cyprinodon variegatus (sheepshead minnow)) 3.94 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.00017 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient permethrin. EC50 (Daphnia magna (Water flea)) 0.51 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to aquatic plants	EC50 (Algae) 0.5 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient permethrin. EC50 (Algae) > 9.1 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient piperonyl butoxide.
Biodegradability	Permethrin: ; not rapidly biodegradable Piperonyl butoxide: ; not rapidly biodegradable
Koc	Permethrin: Koc: 100000 Piperonyl butoxide: Koc: 399 - 830
Bioaccumulation	Permethrin: Bioconcentration factor (BCF) 300; Does not bioaccumulate. Piperonyl butoxide: ; Potential bioaccumulation
Mobility in soil	Permethrin: Immobile in soil Piperonyl butoxide: Moderately mobile in soils
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.



AQUA-RESLIN®

Version 2.0 / USA
102000004847

9/11

Revision Date: 02/11/2015
Print Date: 02/11/2015

Do not apply when weather conditions favor runoff or drift.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.
Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Contaminated packaging Triple rinse containers.
Puncture container to avoid re-use.
Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning.
If burned, stay out of smoke.
Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR Not dangerous goods / not hazardous material

IMDG

UN number **3082**
Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN, PIPERONYL BUTOXIDE SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN, PIPERONYL BUTOXIDE SOLUTION)



AQUA-RESLIN®

Version 2.0 / USA
102000004847

10/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-796

US Federal Regulations

TSCA list

Piperonyl butoxide	51-03-6
Naphtha (petroleum), heavy alkylate	64741-65-7
Fatty alcohol polyglycol ether	9004-98-2

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Permethrin	52645-53-1	1.0%
Piperonyl butoxide	51-03-6	1.0%

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Permethrin	52645-53-1	NJ, RI
Piperonyl butoxide	51-03-6	NJ, RI
Naphtha (petroleum), heavy alkylate	64741-65-7	CA, CT, MN

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

Permethrin	52645-53-1
------------	------------

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Permethrin	52645-53-1
------------	------------



AQUA-RESLIN®

Version 2.0 / USA
102000004847

11/11
Revision Date: 02/11/2015
Print Date: 02/11/2015

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if swallowed.
Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 02/11/2015

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



TERMINIX®
ALLCLEAR®
MOSQUITO SOLUTIONS

ATSB® Mosquito Bait Concentrate

Attracts & Kills Mosquitoes



Controls up to 4 Weeks

Environmentally Friendly • Safe around People, Pets, & Food

ACTIVE INGREDIENTS:

Garlic Oil.....	0.40%
Other Ingredients*	99.60%
Total	100.00%

*Date syrup, Citrus juice, Sucrose, Water, beta-Cyclodextrine, Gellan gum, Potassium sorbate

NET CONTENTS: 1.32 Gallon (5 liters)

CAUTION

Keep Out of Reach of Children



TERMINIX
ALLCLEAR
MOSQUITO SOLUTIONS

ATSB[®] Mosquito Bait Concentrate

- Attracts & kills mosquitoes
- Safe to use around people, pets, & food
- Controls up to 4 weeks
- Patented technology
- Controls many mosquito species including the Asian tiger mosquito

ATSB[®] Mosquito Bait is a bait spray applied to areas frequented by adult mosquitoes. Male and female mosquitoes are attracted to the bait, feed on it, and die.

PRECAUTIONARY STATEMENTS:

CAUTION. Keep Out of Reach of Children. This product contains an essential oil. In sensitive individuals it may cause skin irritation. Avoid contact with skin, eyes or clothing. Wash hands with soap and water after handling.

FIRST AID: If concentrate gets in eyes, flush eyes with water. If on skin, wash area with soap and water. If any complications occur, contact a doctor. Upon application, product has a garlic scent that dissipates within 1 to 2 hours. If allergic to garlic, do not apply product and stay out of treated areas.

STORAGE & DISPOSAL: Store in a cool, dry place away from children and pets. Do not re-use empty container. Rinse with water before disposing or recycling.

ENVIRONMENTAL HAZARDS: Do not apply to blooming or budding flowers, flowering plants, fruit bearing plants or trees, or in direct proximity to beehives.

DIRECTIONS FOR USE:

Read entire label before use

OUTDOOR USE AREAS: For control of adult mosquitoes in outdoor residential, municipal, commercial, and recreational areas including but not limited to: urban areas, woodlands, tire pile dump sites, roadsides, parks, campsites, outside animal quarters and barns, athletic fields, golf courses, gardens, playgrounds, non-crop waste areas, range land, landscapes, pastures, overgrown waste areas, crawl spaces and other outdoor areas frequented by adult mosquitoes.

MIXING: This is a concentrate. To prepare dilution, mix 1 part concentrate in 3 parts water (0.1% ai) and mix thoroughly (the "Mixture"). Agitate frequently while applying. Apply diluted Mixture within 24 hours of mixing to achieve maximum efficacy.

APPLICATION: To achieve maximum efficacy, it is recommended that the Mixture be applied as follows:

- Mixture should be applied to surfaces frequented by adult mosquitoes including natural foliage and manmade non-porous surfaces such as stained or painted wood, plastic, and metal to maximize the opportunity for adult mosquitoes to ingest Mixture. Application on porous materials and surfaces such as brick, untreated wood, concrete, fabric and soil will reduce the efficacy.

- Mixture may cause discoloration on some surfaces. Before treating any surface, spot test a small area to ensure the product does not stain and/or is not absorbed into that substrate.

- Mixture should be applied using ground based spray equipment such as motorized, portable, pump-up, backpack, handheld, vehicle mounted and other ground based spray equipment capable of medium to heavy spray droplets to ensure an optimal amount of Mixture is applied on targeted surfaces areas. Mixture should not be applied with handheld or truck mounted cold aerosol ULV sprayers and thermal fogging devices. Do not apply by aircraft.

- Application when rainfall is occurring, or in the 24-hour period immediately preceding rainfall, may prevent Mixture from properly adhering to the target surfaces and may reduce efficacy. Subsequent heavy or sustained rainfall will reduce effectiveness and may require reapplication to maintain desired level of control.

- Hand or automatic irrigation of landscaping should be avoided for 24 hours after application.

- Controls mosquitoes for up to 4 weeks when used as directed. Reapply every 4 weeks or more frequently as necessary to achieve the desired level of mosquito control based upon weather conditions and local mosquito activity.

- Applications can be made as a perimeter, spot, or a combination of both treatments.
- A sufficient volume of Mixture should be applied in an up and down motion to both the upper and underside of foliage and non-porous surfaces to thoroughly and uniformly wet foliage and surfaces to the point of runoff.
- Targeted surfaces should make up a minimum of 5% of the property land area.

For Perimeter Treatments:

For properties that have continuous vegetation (e.g., hedges, other shrubs) or extensive landscaping apply Mixture in a continuous band measuring about 1.5 feet wide to vegetation, between 1 and 5 feet above the ground. Apply Mixture to the point of runoff at a rate of 15 to 20 oz. Mixture per 100 linear feet.

For Area Spot Treatments:

Apply Mixture to target surfaces (ideally at least 1 foot off the ground) to a spot approximately 1 square yard (3'x3') to the point of runoff. Repeat spot applications approximately every 10 feet where targeted surfaces exist on the property, including along the perimeter of the yard and around the structure.

U.S. Patent No. 8,420,070

Distributed by:
Universal Pest Solutions, LP
5950 Berkshire Ln., Ste. 400
Dallas, TX 75225
888-9NO-BITE

The product has not been registered by the U.S. EPA. Universal Pest Solutions, LP represents that this product qualifies for exemption from registration under FIFRA.

Terminix[®] is a registered trademark of The Terminix International Company, L.P. Used with permission.





SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME(S) **Terminix ALLCLEAR ATSB[®] Mosquito Bait Concentrate**
RECOMMENDED USE Sugar Bait Concentrate to be Mixed with Water 1:3
MANUFACTURER Universal Pest Solutions, LP
5950 Berkshire Lane, Suite 400, Dallas TX 75225
888-966-2483
EMERGENCY PHONE NUMBER 888-740-8712

2. HAZARD(S) IDENTIFICATION

GHS HAZARD CLASSIFICATION: Non Hazardous
UNCLASSIFIED HAZARDS: 0
PERCENTAGE OF INGREDIENTS WITH UNKNOWN TOXICITY: 0

OSHA HAZARDOUS INGREDIENTS TABLE

HMIS: Health 0 Flamm. 0 React. 0 **NFPA:** Tox. 0 Flamm. 0 React. 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CHEMICAL</u>	<u>CAS #</u>	<u>% BY WEIGHT</u>
<u>ACTIVE INGREDIENT</u>		
Garlic Oil	8000-78-0	0.40%
<u>INERT INGREDIENTS</u>		
Dates (juiced)	NA	0.10 to 99.60
Orange juice	NA	0.10 to 99.60
Sugar	57-50-1	0.10 to 99.60
Water	7732-18-5	0.10 to 99.60
beta-Cyclodextrin	7585-39-9	0.10 to 99.60
Gellan gum	71010-52-1	0.10 to 99.60
Potassium sorbate	590-00-1	0.10 to 99.60
Citric Acid	77-92-9	0.10 to 99.60
		<hr/> 100.00%

The specific chemical identities and percentages of composition have been withheld as trade secrets.

4. FIRST AID MEASURES

Inhalation Non-toxic. Move to fresh air.
Eye Contact May cause eye irritation. Flush eyes with a directed stream of water for at least 15 minutes.
Skin Contact May cause skin irritation. In case of skin contact and/or irritation, flush skin with water and wash with soap and water. If skin irritation persists, consult a physician.
Ingestion Non-toxic. Do not induce vomiting. Drink liquid to dilute (milk, egg whites, gelatin)

Most Important Symptoms solution and water).
Skin or eye irritation
Immediate Medical Attention Needed None known

5. FIRE FIGHTING MEASURES

Extinguisher Media Non-required, non-flammable
Flammability **NON-FLAMMABLE** Water Emulsion
SPECIAL FIRE FIGHTING PROCEDURES: None required, non-flammable
UNUSUAL HAZARDS: None

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: None known.
PROCEDURES FOR CLEANING UP LEAKS AND SPILLS: Soak up with inert absorbent material.
Dispose of spill material in trash.

7. HANDLING AND STORAGE

HANDLING: Keep out of reach of children. Read label cautions carefully. Follow label directions to avoid injury. Minimize inhalation with safety mask when spraying. Wash hands thoroughly after each use. Avoid contact with skin and eyes. Do not puncture container.

STORAGE: Keep out of reach of children. Do not puncture or incinerate container. Do not store in direct sunlight.

Store in a cool, dry, well-ventilated area away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PELs: NONE
TLVs: NONE
ACGIH: NONE

ENGINEERING CONTROLS: Maintain adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT: Minimize inhalation with safety mask when spraying

Wear RUBBER GLOVES when handling the product.

Wear SAFETY GLASSES or GOGGLES to prevent eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Yellowish, sticky liquid
Odor	Garlic scent
Odor Threshold	NA
pH	4.0-5.0
Freezing Point	<32°F
Initial boiling point and boiling range	>200°F
Flash point	Not flammable
Evaporation Rate (BuAc=1)	<1.00
Flammability	Non-Flammable
Upper/lower flammability or explosive limits	Non-Flammable
Vapor pressure	1 mmHg at 20°C
Vapor density	NA
Relative density	1.1-1.2
Solubility	Soluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Specific Gravity	1.3-1.35 g/ml
%-VOC CONTENT	0%

10. STABILITY AND REACTIVITY

REACTIVITY: Not reactive.

CHEMICAL STABILITY: Stable under normal ambient temperature and conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Will not create hazardous reactions.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

OTHER:

Will not polymerize

Will not release excess pressure or heat

Will not create other hazardous conditions.

11. TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Inhalation Non-toxic

Eye Contact May cause eye irritation.

Skin Contact May cause skin irritation.

Ingestion Non-toxic

PRIMARY ROUTES OF EXPOSURE: Inhalation, eye/skin contact.

CONDITIONS AGGRAVATED BY EXPOSURE: None known.

ANY INGRED. LISTED CARCINOGEN: **OSHA** Not listed. **IARC** Not listed. **NTP** Not listed.

12. ECOLOGICAL INFORMATION

Product does not pose environmental hazards. Ingredients are food grade and biodegradable in nature.

Runoff does not pose any potential dangers to fish or wildlife.

13. DISPOSAL CONSIDERATIONS

Before offering for recycling, empty the container by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with regulations.

14. TRANSPORT INFORMATION

Proposition 65 – California Safe Drinking Water and Toxic Enforcement Act of 1986

This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

DOT Shipping Name: Not Regulated-Non-Hazardous Material

Hazard Class: Not Listed

UN/ID Number: Not Listed

Ships using DOT Not Listed

IATA ID8000: Not Listed

15. REGULATORY INFORMATION

This product is 25b EPA Exempt as its active ingredient is from the 25b actives list and all inert ingredients are from the 4a inerts list and are all GRAS (generally regarded as safe).

16. OTHER INFORMATION

We believe all information given is accurate. It is offered in good faith but without guarantee. Since conditions of use are beyond our control, user assumes all responsibility and risk.

PREPARATION DATE

March 18, 2015

PREPARED BY

UNIVERSAL PEST SOLUTIONS, LP

BARBICIDE®

Hospital

GERMICIDE, PSEUDOMONACIDE FUNGICIDE & VIRUCIDE*

Anti Rust Formula

ACTIVE INGREDIENT:	
Alkyl (50% C ₁₆ , 40% C ₁₂ , 10% C ₁₈) dimethyl benzyl ammonium chloride	5.12%
INERT INGREDIENTS	94.88%
TOTAL:	100.00%
(Contains sodium nitrite)	

KEEP OUT OF REACH OF CHILDREN DANGER

Call poison control center or doctor immediately for treatment advice. IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. IF SWALLOWED: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Net Contents 64 FL. OZ. 1.89 L

KILLS *HIV-1 (AIDS VIRUS), *HBV AND *HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD AND BODY FLUIDS.

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATING AGAINST HIV-1, HBV OR HCV ON SURFACES/OBJECTS SOILED WITH BLOOD AND BODY FLUIDS.

On pre-cleaned environmental surfaces/objects previously soiled with blood/body fluids in health care settings or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS), Hepatitis B Virus (HBV), or Hepatitis C Virus (HCV).

PERSONAL PROTECTION

When handling items soiled with blood or body fluids, use appropriate barrier protection such as disposable latex gloves, gowns, masks and eye coverings.

CLEANING PROCEDURE

Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of this disinfectant.

DISPOSAL OF INFECTIOUS MATERIALS

Blood and other body fluids must be autoclaved and disposed of according to Federal, State and local regulations for infectious waste disposal.

CONTACT TIME

Leave surface wet for 10 minutes.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: KEEP OUT OF REACH OF CHILDREN. CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN BURNS. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. HARMFUL IF SWALLOWED. AVOID CONTAMINATION OF FOOD. WEAR EYE PROTECTION (FACE SHIELD AND/OR GOGGLES), PROTECTIVE CLOTHING, AND RUBBER GLOVES WHEN HANDLING. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE, DRINKING, OR USING TOBACCO. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

STORAGE AND DISPOSAL

Do not store on side. Avoid creasing or impacting of side walls. Non-refillable container. Do no reuse or refill this container. Offer for recycling, if available or wrap container and put in trash.

PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinse water is a violation of Federal Law. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

A PRODUCT OF
KING
RESEARCH®

7025 West Marcia Road
MILWAUKEE, WI 53223

EPA Registration No. 954-11 EPA Establishment No. 051435-WI-004



BARBICIDE 64 oz.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. To make a HOSPITAL DISINFECTANT mix 2 ounces of BARBICIDE in 32 ounces of water. BARBICIDE is for use in hospitals, health care facilities, tanning facilities and in beauty salons, barbershops, and hairstyling establishments. SURFACES: On inanimate, hard non-porous surfaces such as floors, sink tops, tables, acrylic tanning beds, telephones, toilet seats, and door handles. Apply solution prepared as above to pre-cleaned surfaces with a cloth, mop, sponge, or coarse mist pump or trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes and then let air-dry. BEAUTY/BARBER INSTRUMENTS AND TOOLS: Thoroughly clean brushes, combs, clipper blades, shears, razors, and other inanimate hard surfaced non-porous tools and implements prior to complete immersion for 10 minutes (or as required by local authorities) in a solution as prepared above. Rinse to remove BARBICIDE after immersion and dry before use. Fresh solution must be prepared daily or more often if solution becomes diluted or soiled. PERFORMANCE: When tested with full immersion for 10 minutes in a solution prepared as above, BARBICIDE has been found to be effective against: Pseudomonas aeruginosa, Salmonella enterica, Staphylococcus aureus (including Staphylococcus aureus Methicillin Resistant (MRSA)), Trichophyton mentagrophytes, *Herpes Simplex Virus Type-1 and Type-2, *Human Immunodeficiency Virus Type 1 (HIV-1) (AIDS virus), Influenza A Virus (in 5% Serum), *Hepatitis B Virus and *Hepatitis C Virus.
BAR-1890-01



Safety Data Sheet

Section 1 – Identification

Product Identifier: Barbicide Concentrate

Other means of Identification: Disinfecting solution

Name and Address of Responsible Parties:

King Research, Inc

7025 W. Marcia Rd.

Milwaukee, WI 53223

Information Telephone #: 1-800-222-8160

24 Hr. Emergency Telephone Number: INFOTRAC- 1-800-535-5053

International 24 Hr. Emergency Telephone Number: INFOTRAC – 1-352-323-3500

Contract # - 106253

Section 2 – Hazards Identification

Classification of the Chemical: Clear dark blue liquid. Alcohol and disinfectant odor.

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200) (Hazcom 2012).

Hazardous classification: Flammable liquid – Category 3
Skin irritation – Category 2
Eye irritation – Category 2A

Label elements:

Signal Word: Warning

Hazard Statements: Flammable liquid and vapor.
Causes Skin irritation.
Causes Serious Eye irritation.

Precautionary Statements: Keep away from heat, sparks, open flames and hot surfaces.
No smoking.
In case of fire: Use water fog, Carbon dioxide, Dry chemical or Foam to extinguish.
Ground/Bond container and receiving equipment.
Take precautionary measures against static discharge.

Section 2 – Hazards Identification (continued)

Keep container tightly closed.
 Store in a well ventilated place. Keep cool.
 Wash hands thoroughly after handling.
 If on Skin: Wash with plenty of soap and water.
 If skin irritation occurs get medical advice/attention.
 Take off contaminated clothing and wash before reuse.
 Wear protective gloves.
 Wear eye protection such as goggles or safety glasses with side shields.
 If in eyes: Rinse cautiously with water for 15 minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists get medical advice/attention.
 Do not eat, drink or smoke when using this product.
 If swallowed: Immediately call a poison center/physician, Rinse mouth.
 Dispose of contents/container in accordance with local, state, federal or international regulations.

Hazard Pictogram(s):



Other Hazards not otherwise classified:

This product contains 1.05% ingredients of an unknown acute toxicity. See section 11 for more information.

Section 3 – Composition/Information on Ingredients

Chemical Name, Common Name	CAS #	Concentration wt/wt(*)
Isopropyl alcohol	67-63-0	5-25
Dimethyl benzyl ammonium chloride	68424-85-1	0.5-10
Sodium Nitrite	7632-00-0	0.5-10

* Note: The exact concentrations of the chemical(s) above are being withheld as a trade secret.

Section 4 – First-Aid Measures

Description of first aid measures:

Inhalation: If inhaled remove victim to fresh air and keep at rest. Call a poison center or physician if you feel unwell.

Skin contact: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs get medical advice/attention.

Eye contact: If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and continue rinsing. If eye irritation persists seek medical advice/attention.

Ingestion: Do NOT induce vomiting unless instructed by medical personal. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Causes skin irritation.

Causes eye irritation.

Ingestion may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically

Section 5 – Fire-Fighting Measures

Extinguishing media:

Suitable extinguishing media: Water fog, Carbon dioxide, Dry chemical, Foam

Unsuitable extinguishing media: Not available

Special hazards arising from the substance or mixture: None Known

Flammability classification: (OSHA 29 CFR 1910.106) (Hazcom 2012): Flammable liquid – Category 3

Hazardous combustion products: Carbon oxides, other unidentified organic compounds.

Special protective equipment and precautions for firefighters:

Protective equipment for fire-fighters: Firefighters should wear proper protective equipment (Bunker gear) and self-contained breathing apparatus with full face operated in positive pressure mode.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

All persons dealing with the clean-up should use the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in section 7 and 8.

Methods and materials for containment and clean up:

Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent run-off into drains, sewers, or any natural waterway or drinking supply. Ventilate the area. Remove all sources of ignition. Soak up with inert absorbent material. Scoop up material and place into suitable container(s). Dispose of according to local, state and federal regulations.

Section 7 – Handling and Storage

Precautions for safe handling:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye/face protection. Adequate ventilation should be supplied. Avoid contact with skin, eyes and clothing. Keep away from heat and ignition sources. Ground/Bond container and receiving equipment. Take precautionary measures against static discharge. Keep container tightly closed.

Conditions for safe storage:

Store in cool, dry and well ventilated place. Containers should be clearly identified, clear of obstructions and accessible only to authorized personnel. Protect from sunlight. Have appropriate fire extinguishers/sprinkler system in place. Spill clean-up equipment should be in or near storage area.

Incompatible materials:

Strong oxidizers, Strong acids.

Section 8 – Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	ACGIH-TLV	OSHA-PEL
Isopropyl alcohol	200ppm	400ppm
Dimethyl benzyl ammonium chloride	Not available	Not available
Sodium Nitrite	Not available	Not available

Exposure controls:

Ventilation and engineering measures: Use in well ventilated area. Apply technical measures to comply with occupational exposure limits if needed.

Section 8 – Exposure Controls/Personal Protection (Continued)

Respiratory measures: If airborne concentrations are above the permissible exposure limit use NIOSH approved respirators.

Skin Protection: Wear protective gloves. Where extensive exposure to the product is possible, use resistant apron/suit and boots.

Eye/face Protection: Goggles or safety glasses with side shields.

Other Protective equipment: Ensure that eyewash stations and a safety shower are close to the workstation(s).

General hygiene considerations: Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Wash hands after handling. Remove and wash all contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

Section 9 – Physical and Chemical Properties

Appearance: Clear dark blue liquid.

Odor: Alcohol/disinfectant odor.

Odor threshold: Not available

PH: 10.0-12.0

Melting/Freezing pointing: Not available

Boiling point and boiling range: >100C (212F)

Flash point: >33.3°C (92°F)

Evaporation point (Butyl Acetate=1): Not available

Flammability (method determination): Small Scale closed cup, ASTM D3278/D3828

Lower flammability limit (% by vol.): Not available

Upper flammability limit (% by vol.): Not available

Vapor pressure: Not available

Vapor density: Not available

Relative density: 0.99-1.02

Solubility in water: Complete

Partition Coefficient (n-octanol/water): Not available

Auto ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Volatiles (% by wt) = 14%

Volatile organic compounds: Isopropyl alcohol, Dimethyl benzyl ammonium chloride

Other physical/chemical comments: No addition information.

Section 10 – Stability and Reactivity

Reactivity: Not normally reactive.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Heat. Contact with incompatible materials.

Incompatible materials: Strong oxidizers, Strong acids.

Hazardous decomposition products: Carbon oxides.

Section 11 – Toxicological Information

Information on routes of exposure:

Routes of entry-inhalation: YES

Routes of entry-skin & eye: YES

Routes of entry-Ingestion: YES

Routes of entry-skin absorption: YES

Potential Health Effects:

Signs and symptoms of short term exposure:

Signs and symptoms: Inhalation – May cause respiratory irritation. May cause headache, nausea, dizziness and other symptoms of central nervous system depression.

Signs and symptoms: Ingestion – Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Signs and symptoms: Skin – May cause irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Signs and symptoms: Eyes – May cause severe irritation.

Potential Chronic Health Effects: None known

Mutagenicity: Not hazardous by OSHA/WHMIS criteria.

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects: Not hazardous by OSHA/WHMIS criteria.

Sensitization to material: No data available to indicate product may be a sensitizer.

Specific target organ effects: Not Available.

Medical conditions aggravated by overexposure: Pre-existing skin and eye conditions.

Section 11 – Toxicological Information (Continued)

Toxicological data: The calculated ATE value for this mixture is above classification parameters.

ATE (oral) = 2,912mg/kg

Chemical Name	LD50-Oral	Dermal
Isopropyl alcohol	5000mg/kg (rat)	12,800mg/kg (rabbit)
Dimethyl benzyl ammonium chloride	>2000mg/kg (rabbit)	>2000mg/kg (rabbit)
Sodium Nitrite	85mg/kg (rat)	Not available

Section 12 – Ecological Information

Ecotoxicity: May be dangerous to the environment. No data is available on the product itself. Should not be released directly into the environment.

Mobility in Soil: This product itself has not been tested.

Persistence and degradability: This product itself has not been tested.

Bioaccumulation potential: This product itself has not been tested.

Other adverse Environmental effects: None Known.

Section 13 – Disposal Information

Handling for disposal: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of disposal: Dispose in accordance with all applicable federal, state, provincial and local regulation. Contact your federal, state, provincial and local authorities for specific rules.

Section 14 – Transportation Information

US 49 CFR/DOT Hazard Classification:

UN No.: UN1993
 UN Proper shipping name: Flammable liquid, N.O.S., (Isopropyl alcohol)
 Transport hazard class: 3
 Packing group: III
 ERG: 154

Special Transportation Notes: Not regulated per alcohol exemption (CFR 49 173.150(e)) or Limited Quantity exemption (CFR 49 173.150(b)).

DOT Marine Pollutants: This product does not contain Marine Pollutants as defined in CFR 49 171.8.

Section 14 – Transportation Information (Continued)**IMDG/IMO Code Shipping Classification:**

UN No.: UN1993
UN Proper shipping name: Flammable liquid, N.O.S., (Isopropyl alcohol)
Transport hazard class: 3
Packing group: III
ERG: 154

Not classified as a marine pollutant.

ICAO/IATA Air Transport Classification

UN No.: UN1993
UN Proper shipping name: Flammable liquid, N.O.S., (Isopropyl alcohol)
Transport hazard class: 3
Packing group: III
ERG: 154

Section 15 – Regulatory Information**US Federal Information:**

TSCA: All listed ingredients appear on the Toxic Substances Control Act.

US CERCLA Reportable quantity (RQ): Sodium Nitrite (100lbs.)

SARA Title III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355:

No extremely hazardous substances are present in this material.

SARA Title III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes:

Reactive Hazard, Acute Health Hazard, Chronic Health Hazard. Under SARA Section 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA Title III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372:

This product contains Isopropyl alcohol and sodium nitrite.

State Regulations:

California Proposition 65: This product does not contain a chemical known to the State of California to cause, birth defects or other reproductive harm.

International Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Section 16 – Other Information**HMIS – Hazardous Materials Identification System**

Health -2 Flammability -2 Physical Hazard -1 PPE –B

NFPA – National Fire Protection Association

Health -2 Flammability -2 Reactivity -1

Abbreviations legend:**ACGIH:** American Conference of Governmental Industrial Hygienist**CAS:** Chemical abstract Services**CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act of 1980**CFR:** Code of Federal Regulations**CSA:** Canadian Standards Association**DOT:** Department of Transportation**ECOTOX:** U.S. EPA Ecotoxicology Database**EINECS:** European Inventory of Existing Commercial chemical Substances**EPA:** Environmental Protection agency**HSDB:** Hazardous Substances database**IARC:** International Agency for Research on Cancer**IBC:** Intermediate Bulk Container**IUCLID:** International Uniform Chemical Information Database**LC:** Lethal Concentration**LD:** Lethal Dose**NIOSH:** National Institute of Occupational Safety and Health**NTP:** National Toxicology Program**OECD:** Organization for Economic Cooperation and Development**PEL:** Permissible exposure limit**RCRA:** Resource Conservation and Recovery Act**RTECS:** Registry of Toxic Effects of Chemical Substances**SARA:** Superfund Amendments and Reauthorization Act**SDS:** Safety Data Sheet**STEL:** Short Term Exposure Limit**TDG:** Canadian Transportation of Dangerous Goods Act & Regulations**TLV:** Threshold Limit Values**TWA:** Time Weighted Average**WHMIS:** Workplace Hazardous Materials Identification System**Disclaimer**

The information continued herein is based on the manufactures' own study and the work of others, implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for the safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any other process.

MATERIAL SAFETY DATA SHEET

1 PRODUCT IDENTIFICATION PRODUCT CODE

Mesh Lure
BF L231

2 COMPONENTS

The pheromone dispenser consists of the following insect pheromone components in a polymer based controlled release device

Chemical Name	Other Names	CAS	EC / EINECS
S(+)-2-hydroxy propionic acid	Lactic acid	79-33-4	201-196-2
Hexanoic acid	Caproic acid	142-62-1	205-550-7
Ammonium hydrogen carbonate	Ammonium bicarbonate	1066-33-7	

3 HAZARD IDENTIFICATION

The nature of the device reduces the immediate hazard of the contents. Details are for neat components
Risk Phrases (R) **X_i – IRRITANT** R36/37/38 Irritating to skin, eyes and respiratory system

4 FIRST AID

CONTACT WITH SKIN

Wash hands thoroughly after handling. If irritation occurs seek medical advice. (S28)

CONTACT WITH EYES

Rinse eyes with copious amounts of water. If irritation occurs seek medical advice (S26)

INGESTION

Do not induce vomiting. If ingestion occurs seek medical advice (S62)

INHALATION

If adverse effects are felt, remove patient to fresh air. If symptoms persist seek medical advice.(S63)

OTHER INFORMATION

If further safety data information is required on the neat components, please contact AgriSense BCS Ltd

5 FIRE FIGHTING MEASURES

In case of fire, use water, CO₂ or dry powder. Wear self contained breathing apparatus and protective clothing

6 ACCIDENTAL RELEASE MEASURES

Contain any liquid spillage and collect using standard absorbents such as sand or vermiculite. Seal absorbents in a suitable container and arrange for disposal. Wear appropriate protective equipment.

7.1 HANDLING

Avoid contact with skin (S24). Do not open packaging until time of use. Do not eat, drink or smoke when handling the product (S20/21). Wash hands thoroughly after handling (S28). Wear suitable protective gloves (S37)

7.2 STORAGE

Keep only in the original packaging in a cool, well ventilated place (S3/9/49). The product may be stored in a freezer (-20 °C)

8.1 PERSONAL PROTECTION

If handling bulk quantities use only in well ventilated area (S51) In case of insufficient ventilation, wear suitable respiratory equipment (S38). Wear suitable protective clothing, gloves and eye protection (S36/37/39)

AGRISENSE-BCS LTD.

Treforest Industrial Estate,
Pontypridd, South Wales, CF37 5SU, UK.

Telephone: +44 (0)1443 841155
Fax: +44 (0)1443 841152

Email: mail@agrisense.demon.co.uk
www.agrisense.co.uk



MATERIAL SAFETY DATA SHEET

8.2 EXPOSURE LIMITS

No Data

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Polymer based control release device
Odour Characteristic
Flash Point >62 °C
Solubility in water Insoluble

10 STABILITY

Stable under normal temperature and pressure conditions. Avoid strong oxidising agents, acids and bases.

11 TOXICOLOGICAL INFORMATION

To the best of our knowledge the toxicological properties of the device have not been fully investigated. Prolonged contact may cause irritation or be harmful.

Major component (Lactic acid): LD₅₀ oral, rat 3730mg/kg
LD₅₀ dermal >2000mg/kg

12 ECOLOGICAL INFORMATION

To the best of our knowledge, the ecological effects of the device have not been fully investigated. Prevent contamination of soil, ground and surface water

Major component (Lactic acid): EC₅₀ /48hr/daphnia 240mg/l
EC₅₀ /48hr/fish 320mg/l

13 DISPOSAL

Material should be collected and disposed of in accordance with local, state or national legislation. Waste may be incinerated in a chemical incinerator equipped with an afterburner and scrubber.

14 TRANSPORT REGULATIONS

ROAD: Not Regulated
SEA: Not Regulated
AIR: Not Regulated

15 REGULATORY INFORMATION

Risk Phrases (R) X_i – IRRITANT R36/37/38 Irritating to skin, eyes and respiratory system

16 OTHER INFORMATION

To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been comprehensively investigated. Consequently, care should be taken to avoid unnecessary exposure when using this material.

Version No	Date	Reason for Revision
2	24/5/06	Review / update

TO THE BEST OF OUR KNOWLEDGE THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT CLAIM TO BE ALL-INCLUSIVE AND SHOULD BE USED ONLY AS A GUIDE. ALL MATERIAL MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. AGRISENSE BCS LTD SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM THE HANDLING OF, OR CONTACT WITH, THE ABOVE PRODUCT

AGRISENSE-BCS LTD.

Treforest Industrial Estate,
Pontypridd, South Wales, CF37 5SU, UK.

Telephone: +44 (0)1443 841155
Fax: +44 (0)1443 841152

Email: mail@agrisense.demon.co.uk
www.agrisense.co.uk



**PRECAUTIONARY STATEMENTS
CAUTION**

Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wear goggles and chemical-resistant gloves. Avoid breathing spray, mists or vapors. Wash hands after using. Avoid contamination of food or food stuffs.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, neoprene rubber, and Viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance selection chart.

Mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE if pesticide gets inside. Then, wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing them. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this product is used. Consult the State agency, with primary responsibility for regulating pesticides, before applying to public waters to determine if a permit is needed. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

PHYSICAL AND CHEMICAL HAZARDS

Do NOT store, use, pour or spill near flames or excessive heat. In case of fire, use water spray, foam, CO₂, or dry chemical.

TERMS

To the extent consistent with applicable laws, the seller's guarantee is limited to the terms on the label. The buyer accepts the product on these conditions. Timing and method of applications, crop conditions, weather, and mixtures with chemicals in the use of this product are beyond the control of the seller.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry, locked area out of the reach of children.

Do not store near excessive heat or open flame.

PESTICIDE DISPOSAL: Pesticide or pesticide waste rinse solution that cannot be used according to the label, must be disposed of according to applicable Federal, State, or local procedures or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into the mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into the mix tank or store rinsate for later disposal. Repeat this procedure two more times. Then offer for recycling, if available. If recycling is not available, puncture container and dispose of it in a sanitary landfill or by other approved State and local procedures.

BVA 2 MOSQUITO LARVICIDE OIL

ACTIVE INGREDIENT:	% BY WT.
Mineral Oil*.....	97%
Other Ingredients.....	3%
Total.....	100%

*Contains petroleum distillate

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Call a poison control center or doctor for treatment advice. • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
If swallowed	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center, or doctor, or going for treatment. You may also contact CHEMTREC 1.800.424.9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.	

See left side panel for additional precautionary statements

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact adults, children, or pets, either directly or through drift. Do not allow adults, children, or pets to enter treated areas until sprays have dried.

BVA 2 Mosquito Larvicide may be used to control mosquito larvae in swamps, marshes, floodwater areas, drainage areas, storm sewer catch basins, waste treatment facilities, settling ponds, ditches, temporary rain pools and other man-made depressions containing stagnant water pools, including, abandoned swimming pools, fountains and ponds.

Apply **BVA 2 Mosquito Larvicide** at rates of 1-5 gallons per acre depending on how dense the vegetation and weeds may be. This product may be applied by the following methods: handgun or handwand sprayer and by air.

BVA 2 Mosquito Larvicide has a water-white clear color and is practically odorless.

DIRECTIONS FOR USE (continued)

BVA 2 Mosquito Larvicide does not depend on life-cycle time for effectiveness. As it kills by suffocation, mosquitoes do not develop resistance. When applied as directed this product does not leave a dark oily film.

SPRAY DRIFT MANAGEMENT

A variety of factors (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., handgun, handwand, ground or aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph at the application site.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if:

- a) conditions of temperature inversion exist, or
- b) stable atmospheric conditions exist at or below nozzle height.

Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Droplet Size: Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

Ground Spray (Handgun or Handwand) Applications

Ground applications must be in compliance with the specifications indicated above regarding **Wind Speed, Temperature Inversions, and Droplet Size.**

Apply using a nozzle height of no more than 4 feet above the ground, water surface, or crop canopy.

Aerial Applications

Aerial applications must be in compliance with the specifications indicated above regarding **Wind Speed, Temperature Inversions, and Droplet Size.**

Release Height: Do not release spray at a height greater than 10 feet above the ground, water surface, or the tops of plants that are to be sprayed.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Leave at least one untreated swath at the downwind edge of the treated field.

TREATMENT RATES

Apply this product at rates of 1 to 5 gallons per acre (3 to 15 fl. oz. per 1000 sq. ft.) depending on water surface conditions and vegetative density. Use 1 to 2½ gallons per acre (3 to 7½ fl. oz. per 1000 sq. ft.) if trees are in green tip stage, vegetative cover is light and water is essentially clean.

To penetrate heavier or denser vegetative cover, or if water is substantially polluted, use 2½ to 5 gallons per acre (7½ to 15 fl. oz. per 1000 sq. ft.).

An average rate of 2½ to 3 gallons per acre (approximately 1 quart per 5000 sq. ft. (50'x100' area)), 7½ to 9 fl. oz. per 1000 sq. ft. or 2-4 teaspoons per 100 sq. ft. (10'x10' area) of water surface covers most conditions.

BVA Oils (a division of B-V Associates, Inc.)

29222 Trident Industrial Blvd.
New Hudson, MI 48165
800.231.3376
www.bva oils.com
REV042913



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT	
Product Name:	BVA 2 Mosquito Larvicide Oil
Product Description:	Mixture Highly Refined Mineral Oil Base Stock (oil) with Additives.
Intended Use:	Larvicide Oil
COMPANY IDENTIFICATION	
Supplier	BVA Inc. 29222 Trident Industrial Blvd. New Hudson, MI 48165 USA +1-248-348-4920
Emergency telephone numbers	USA – Chemtrec: 800-424-9300 All Others – Chemtrec: +1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION	
Please see Section 3 and 15 for country specific classification information, and Section 11 for additional details.	
HEALTH HAZARDS	
Aspiration toxicant: Category 1. Acute inhalation toxicant: Category 4.	
Signal Word: Danger	
GHS Symbol:	
Health Hazards: May be fatal if swallowed and enters airways. Harmful if inhaled.	
Precautionary Hazard - Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.	
Precautionary Hazard - Storage: Store locked up.	
Precautionary Hazard - Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.	
Other	
EU Classification:	
Signal Word: Danger	
Risk Phrases: R20: Harmful by inhalation. R65: Harmful: may cause lung damage if swallowed.	
Safety Phrases: S2: Keep out of the reach of children. S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.	
<i>This information is based on test data from similar products.</i> This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances / Preparations Directives. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.	
Note : <i>This information is based on test data from similar products.</i> This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. Low order of toxicity.	

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 2 of 8

GHS and other international



Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Chemical Name: Mixture	CAS #	Percent (% wt)
The base oil may be a mixture of the Following: 1) Hydrotreated Distillate, Heavy Paraffin 2) Hydrotreated Distillate, Light Paraffin 3) Hydrotreated Neutral Oil 4) White Mineral Oil	The base oil may be a mixture of the Following CAS#s: 64742-54-7, 64742-55-8 72623-87-1 8042-47-5	>95%
Proprietary additives		<5%
None		

SECTION 4 : FIRST AID MEASURES

Inhalation:	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Skin:	Wash with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops get medical attention.
Eye :	Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion:	First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 : FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA	Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Inappropriate Extinguishing Media: Straight streams of water					
FIRE FIGHTING	Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel. Hazardous Combustion Products: Smoke, Fume, Carbon Monoxide, Aldehydes,					
FLAMMABILITY PROPERTIES	<table border="1"> <thead> <tr> <th colspan="2">Flash Point ASTM D92 (open cup typical)</th> <th rowspan="2">Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D</th> </tr> </thead> <tbody> <tr> <td>Larv 2</td> <td>180 (356)</td> </tr> </tbody> </table> Autoignition Temperature: N/D	Flash Point ASTM D92 (open cup typical)		Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D	Larv 2	180 (356)
Flash Point ASTM D92 (open cup typical)		Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D				
Larv 2	180 (356)					

SECTION 6 : SPILL OR LEAK HANDLING PROCEDURES

SPILL MANAGEMENT	<p>Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.</p> <p>Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.</p> <p>Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.</p>
ENVIRONMENTAL PRECAUTIONS	Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 3 of 8

GHS and other international



SECTION 7 : HANDLING AND STORAGE	
HANDLING	Prevent small spills and leakage to avoid slip hazard. Static Accumulator: This material is a static accumulator.
STORAGE	Do not store in open or unlabeled containers.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION	
Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m ³ - ACGIH TLV, 10 mg/m ³ - ACGIH STEL.	
Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s)	
ENGINEERING CONTROLS	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: No special requirements under ordinary conditions of use and with adequate ventilation
PERSONAL PROTECTION	Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.
Respiratory Protection:	Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: No special requirements under ordinary conditions of use and with adequate ventilation. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.
Hand Protection:	Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: No protection is ordinarily required under normal conditions of use.
Eye Protection:	If contact is likely, safety glasses with side shields are recommended.
Skin and Body Protection:	Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Specific Hygiene Measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
ENVIRONMENTAL CONTROLS	See Sections 6, 7, 12, 13.

SECTION 9 : PHYSICAL & CHEMICAL PROPERTIES	
Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.	
General Information	HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION
Physical State	Liquid
Density at 20°C	0.856 - 0.862
Flash Point typical °C (°F)	>160 (320) See Section 5
Flammable Limits	LEL: N/D UEL: N/D
Autoignition Temperature:	ND
Boiling Point °C (°F)	>200°C
Vapor Density (Air=1)	NA
OTHER INFORMATION	

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 4 of 8

GHS and other international



Pour Point °C (°F)	-40 (-40) or below	Vapor Pressure	< 0.013 kPa (0.1 mm Hg) at 20°C
Freezing Point	ND	Evaporation Rate (N-Butyl Acetate = 1):	ND
Viscosity are +/- 10%		Solubility in Water	Nil
Viscosity	cSt at 40°C	Oxidizing Properties	See Sections 3, 15, 16.
Larv 2	10 - 13		

SECTION 10 : STABILITY & REACTIVITY	
STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Excessive heat. High energy sources of ignition.
MATERIALS TO AVOID:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:	Material does not decompose at ambient temperatures.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	
Potential acute health effects	
Inhalation : No known significant effects or critical hazards.	
Ingestion : No known significant effects or critical hazards.	
Skin contact : No known significant effects or critical hazards.	
Eye contact : No known significant effects or critical hazards.	
PRODUCT	
<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
INHALATION	
Toxicity: LC50 > 5000 mg/m3	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
INGESTION	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS
For the product itself:
Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract.
Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.
CARCINOGENIC EFFECTS:
Contains no carcinogens. Similar compounds essentially non-toxic. No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 5 of 8

GHS and other international



Occupational Safety and Health Act (OSHA), NTP or IARC.

Although there is no specific test data on all the base oil components, the mineral base oil would not be expected to exhibit carcinogenic potential based on what is known of the toxicity of mineral base oils in general.

The DMSO extract by IP 346 of the oil is less than 3%. (Typical 0.2% with Maximum 0.5%) Consequently it is not classified as a carcinogen.

The base oil in this product is severely hydro-treated by all hydro-processing route. By this refining history would be showed no evidence of carcinogenic potential.

MUTAGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

TERATOGENIC EFFECTS/DEVELOPMENTAL TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

REPRODUCTION TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

Additional information is available by request.

OVER – EXPOSURE SIGNS/SYMPTOMS

Skin	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.

SECTION 12 : ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land.
Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

ECOLOGICAL DATA

Data for Highly Refined Severely Hydrotreated Base oil for similar materials

TEST	Duration	Organism Type	Test Results
Aquatic - Chronic Toxicity	21 day(s)	Water Flea	NOELR 1.05 mg/l: data for similar materials
	7 days	Fish	NOEC: > 5000mg/L (IUCLID Dataset)
	7 days	Aquatic Invertebrates,	NOEC: > 5000mg/L (IUCLID Dataset)

Care should be taken to minimize release of this product into the environment

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 6 of 8

GHS and other international



Environmental Fate & Distribution	No Data Available	Other Typical (not a specification)
Persistence & Degradation Toxicity	No Data Available	Acute Toxicity to Fish: No Data Available
Effect on Effluent Treatment	Product may be partially removed in biological treatment processes.	Effect Concentration on Algae: No Data Available
		Ready Biodegradability: No Data Available
		Respiration Inhibition: No Data Available
		Adsorption/Desorption: No Data Available
		Abiotic Degradability-Hydrolysis : Not measurable

SECTION 13 : DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

European Waste Code: 13 01 10

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14 : TRANSPORT INFORMATION

LAND (ADR/RID) : Not Regulated for Land Transport

INLAND WATERWAYS (ADNR) : Not Regulated for Inland Waterways Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

US DOT Classification: Not Regulated Marine Pollutant: Not a Pollutant Special Provisions for transport: None Identified	ICAO/IATA Classification Proper shipping name: Not regulated IATA Class UN number: Not regulated. Packing Group: Not regulated.
ADR/RID Classification UN number: Not regulated. Proper shipping name: Not regulated. ADR/RID Class: Not regulated. Packing Group: Not regulated.	IMO/IMDG Classification Proper shipping name: Not regulated IMDG Class: Not regulated UN number: Not regulated. Packing Group: Not regulated. Marine Pollutant: Not pollutant.

USA: No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warnings are not applicable for this product; therefore no OSHA Warnings would appear on the label. No EPA hazard classification code.

SECTION 15: Regulatory Information Product Component Ingredients

Europe

Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.



EU LABELING: Not regulated according to EC Directives Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.

Classification and labeling have been performed according to EU Directives 67/548/EEC, 1999/45/EC and 2001/58/EC (including amendments) and the intended use.
 - Consumer applications.

United States

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances: None.
 Section 304 CERCLA Hazardous Substances: None.
 SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects: YES
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

Canada

WHMIS (Canadian Workplace Hazardous Materials Information System)

This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.

Germany: Water Hazardous Class (WGK): 1 (low hazard to water)

NATIONAL LEGISLATION / REGULATIONS

Ozone depleting chemicals: No ozone depleting chemicals are present or used in manufacture.

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: , DSL, ENCS, TSCA
 Special:

Inventory	Status
AICS	All components are listed or exempted.
ELINCS	Restrictions Apply
IECSC	All components are listed or exempted.
KECI	All components are listed or exempted.
PICCS	All components are listed or exempted.

Detail U.S. Regulations	US INVENTORY (TSCA 8b): Listed on inventory. SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):: This product is not regulated under Section 302 of SARA and 40 CFR Part 355. SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):: Defined as Immediate (Acute) Health Effects by OSHA under 29 CFR 1910.1200(d). SARA 313 toxic chemical notification and release reporting: No products were found. CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: This material is not regulated under CERCLA Sections 103 and 107.
State Regulations	No products were found. California prop. 65: No products were found

SECTION 16: OTHER INFORMATION

This product safety data sheet was prepared in compliance Conforms to HazCom 2012/United States. Certain elements refer to Commission Directive 2001/58/EC , 91/155/EEC, 67/548/EEC and 1999/45/EC for reference, as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 8 of 8

GHS and other international



History

17 September 2011 – minor organization update toward GHS format

21 –March 2014 - moved NFPA and HMIS to section 16 for GHS update in format

Date of issue: 7- March 2015

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

N/D = Not determined, N/A = Not applicable

KEY TO THE RISK CODES CONTAINED IN SECTION 2 AND 3 OF THIS DOCUMENT (for information only):

EU

Risk Phrases:

R20: Harmful by inhalation.

R65: Harmful: may cause lung damage if swallowed.

Safety Phrases:

S2: Keep out of the reach of children.

S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

U.S.A. Hazardous Material Information System and National Fire Protection Association (U.S.A.)

Degree of Hazard	NFPA		HMIS		HAZARD RATINGS
Health	1		1	0	Insignificant
Fire	1		1	1	Slight
Reactivity	0		0	2	Moderate
Personal Protection			B	3	High

The information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. You can contact us to insure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT	
Product Name:	BVA 2 Mosquito Larvicide Oil
Product Description:	Mixture Highly Refined Mineral Oil Base Stock (oil) with Additives.
Intended Use:	Larvicide Oil
COMPANY IDENTIFICATION	
Supplier	BVA Inc. 29222 Trident Industrial Blvd. New Hudson, MI 48165 USA +1-248-348-4920
Emergency telephone numbers	USA – Chemtrec: 800-424-9300 All Others – Chemtrec: +1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION	
Please see Section 3 and 15 for country specific classification information, and Section 11 for additional details.	
HEALTH HAZARDS	
Aspiration toxicant: Category 1. Acute inhalation toxicant: Category 4.	
Signal Word: Danger	
GHS Symbol:	
Health Hazards: May be fatal if swallowed and enters airways. Harmful if inhaled.	
Precautionary Hazard - Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.	
Precautionary Hazard - Storage: Store locked up.	
Precautionary Hazard - Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.	
Other	
EU Classification:	
Signal Word: Danger	
Risk Phrases: R20: Harmful by inhalation. R65: Harmful: may cause lung damage if swallowed.	
Safety Phrases: S2: Keep out of the reach of children. S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.	
<i>This information is based on test data from similar products. This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances / Preparations Directives. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.</i>	
Note : <i>This information is based on test data from similar products.</i> This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. Low order of toxicity.	

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 2 of 8

GHS and other international



Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Chemical Name: Mixture	CAS #	Percent (% wt)
The base oil may be a mixture of the Following: 1) Hydrotreated Distillate, Heavy Paraffin 2) Hydrotreated Distillate, Light Paraffin 3) Hydrotreated Neutral Oil 4) White Mineral Oil	The base oil may be a mixture of the Following CAS#s: 64742-54-7, 64742-55-8 72623-87-1 8042-47-5	>95%
Proprietary additives		<5%
None		

SECTION 4 : FIRST AID MEASURES

Inhalation:	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Skin:	Wash with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops get medical attention.
Eye :	Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion:	First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 : FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA	Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Inappropriate Extinguishing Media: Straight streams of water		
FIRE FIGHTING	Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel. Hazardous Combustion Products: Smoke, Fume, Carbon Monoxide, Aldehydes,		
FLAMMABILITY PROPERTIES	Flash Point ASTM D92 (open cup typical) <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>Larv 2</td> <td>180 (356)</td> </tr> </table> Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D Autoignition Temperature: N/D	Larv 2	180 (356)
Larv 2	180 (356)		

SECTION 6 : SPILL OR LEAK HANDLING PROCEDURES

SPILL MANAGEMENT	Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent. Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.
ENVIRONMENTAL PRECAUTIONS	Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 3 of 8

GHS and other international



SECTION 7 : HANDLING AND STORAGE	
HANDLING	Prevent small spills and leakage to avoid slip hazard. Static Accumulator: This material is a static accumulator.
STORAGE	Do not store in open or unlabeled containers.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION	
Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m ³ - ACGIH TLV, 10 mg/m ³ - ACGIH STEL.	
Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s)	
ENGINEERING CONTROLS	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: No special requirements under ordinary conditions of use and with adequate ventilation
PERSONAL PROTECTION	Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.
Respiratory Protection:	Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: No special requirements under ordinary conditions of use and with adequate ventilation. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.
Hand Protection:	Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: No protection is ordinarily required under normal conditions of use.
Eye Protection:	If contact is likely, safety glasses with side shields are recommended.
Skin and Body Protection:	Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Specific Hygiene Measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
ENVIRONMENTAL CONTROLS	See Sections 6, 7, 12, 13.

SECTION 9 : PHYSICAL & CHEMICAL PROPERTIES	
Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.	
General Information	HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION
Physical State	Liquid
Density at 20°C	0.856 - 0.862
Flash Point typical °C (°F)	>160 (320) See Section 5
Flammable Limits	LEL: N/D UEL: N/D
Autoignition Temperature:	ND
Boiling Point °C (°F)	>200°C
Vapor Density (Air=1)	NA
OTHER INFORMATION	

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 4 of 8

GHS and other international



Pour Point °C (°F)	-40 (-40) or below	Vapor Pressure	< 0.013 kPa (0.1 mm Hg) at 20°C
Freezing Point	ND	Evaporation Rate (N-Butyl Acetate = 1):	ND
Viscosity are +/- 10%		Solubility in Water	Nil
Viscosity	cSt at 40°C	Oxidizing Properties	See Sections 3, 15, 16.
Larv 2	10 - 13		

SECTION 10 : STABILITY & REACTIVITY	
STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Excessive heat. High energy sources of ignition.
MATERIALS TO AVOID:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:	Material does not decompose at ambient temperatures.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	
Potential acute health effects	
Inhalation : No known significant effects or critical hazards.	
Ingestion : No known significant effects or critical hazards.	
Skin contact : No known significant effects or critical hazards.	
Eye contact : No known significant effects or critical hazards.	
PRODUCT	
<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
INHALATION	
Toxicity: LC50 > 5000 mg/m3	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
INGESTION	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS
For the product itself:
Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract.
Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.
CARCINOGENIC EFFECTS:
Contains no carcinogens. Similar compounds essentially non-toxic. No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 5 of 8

GHS and other international



Occupational Safety and Health Act (OSHA), NTP or IARC.

Although there is no specific test data on all the base oil components, the mineral base oil would not be expected to exhibit carcinogenic potential based on what is known of the toxicity of mineral base oils in general.

The DMSO extract by IP 346 of the oil is less than 3%. (Typical 0.2% with Maximum 0.5%) Consequently it is not classified as a carcinogen.

The base oil in this product is severely hydro-treated by all hydro-processing route. By this refining history would be showed no evidence of carcinogenic potential.

MUTAGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

TERATOGENIC EFFECTS/DEVELOPMENTAL TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

REPRODUCTION TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

Additional information is available by request.

OVER – EXPOSURE SIGNS/SYMPTOMS

Skin	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.

SECTION 12 : ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land.
Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

ECOLOGICAL DATA

Data for Highly Refined Severely Hydrotreated Base oil for similar materials

TEST	Duration	Organism Type	Test Results
Aquatic - Chronic Toxicity	21 day(s)	Water Flea	NOELR 1.05 mg/l: data for similar materials
	7 days	Fish	NOEC: > 5000mg/L (IUCLID Dataset)
	7 days	Aquatic Invertebrates,	NOEC: > 5000mg/L (IUCLID Dataset)

Care should be taken to minimize release of this product into the environment

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 6 of 8

GHS and other international



Environmental Fate & Distribution	No Data Available	Other Typical (not a specification)
Persistence & Degradation Toxicity	No Data Available	Acute Toxicity to Fish: No Data Available
Effect on Effluent Treatment	Product may be partially removed in biological treatment processes.	Effect Concentration on Algae: No Data Available
		Ready Biodegradability: No Data Available
		Respiration Inhibition: No Data Available
		Adsorption/Desorption: No Data Available
		Abiotic Degradability-Hydrolysis : Not measurable

SECTION 13 : DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

European Waste Code: 13 01 10

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14 : TRANSPORT INFORMATION

LAND (ADR/RID) : Not Regulated for Land Transport

INLAND WATERWAYS (ADNR) : Not Regulated for Inland Waterways Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

US DOT Classification: Not Regulated Marine Pollutant: Not a Pollutant Special Provisions for transport: None Identified	ICAO/IATA Classification Proper shipping name: Not regulated IATA Class UN number: Not regulated. Packing Group: Not regulated.
ADR/RID Classification UN number: Not regulated. Proper shipping name: Not regulated. ADR/RID Class: Not regulated. Packing Group: Not regulated.	IMO/IMDG Classification Proper shipping name: Not regulated IMDG Class: Not regulated UN number: Not regulated. Packing Group: Not regulated. Marine Pollutant: Not pollutant.

USA: No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warnings are not applicable for this product; therefore no OSHA Warnings would appear on the label. No EPA hazard classification code.

SECTION 15: Regulatory Information Product Component Ingredients

Europe

Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.



EU LABELING: Not regulated according to EC Directives Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.

Classification and labeling have been performed according to EU Directives 67/548/EEC, 1999/45/EC and 2001/58/EC (including amendments) and the intended use.
 - Consumer applications.

United States

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances: None.
 Section 304 CERCLA Hazardous Substances: None.
 SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects: YES
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

Canada

WHMIS (Canadian Workplace Hazardous Materials Information System)

This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.

Germany: Water Hazardous Class (WGK): 1 (low hazard to water)

NATIONAL LEGISLATION / REGULATIONS

Ozone depleting chemicals: No ozone depleting chemicals are present or used in manufacture.

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: , DSL, ENCS, TSCA
 Special:

Inventory	Status
AICS	All components are listed or exempted.
ELINCS	Restrictions Apply
IECSC	All components are listed or exempted.
KECI	All components are listed or exempted.
PICCS	All components are listed or exempted.

Detail U.S. Regulations	US INVENTORY (TSCA 8b): Listed on inventory. SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):: This product is not regulated under Section 302 of SARA and 40 CFR Part 355. SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):: Defined as Immediate (Acute) Health Effects by OSHA under 29 CFR 1910.1200(d). SARA 313 toxic chemical notification and release reporting: No products were found. CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: This material is not regulated under CERCLA Sections 103 and 107.
State Regulations	No products were found. California prop. 65: No products were found

SECTION 16: OTHER INFORMATION

This product safety data sheet was prepared in compliance Conforms to HazCom 2012/United States. Certain elements refer to Commission Directive 2001/58/EC , 91/155/EEC, 67/548/EEC and 1999/45/EC for reference, as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

Product Name: BVA 2 Mosquito Larvicide Oil

Revision Date: 7 February 2015

Page 8 of 8

GHS and other international



History

17 September 2011 – minor organization update toward GHS format

21 –March 2014 - moved NFPA and HMIS to section 16 for GHS update in format

Date of issue: 7- March 2015

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

N/D = Not determined, N/A = Not applicable

KEY TO THE RISK CODES CONTAINED IN SECTION 2 AND 3 OF THIS DOCUMENT (for information only):

EU

Risk Phrases:

R20: Harmful by inhalation.

R65: Harmful: may cause lung damage if swallowed.

Safety Phrases:

S2: Keep out of the reach of children.

S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

U.S.A. Hazardous Material Information System and National Fire Protection Association (U.S.A.)

Degree of Hazard	NFPA		HMIS		HAZARD RATINGS
Health	1		1	0	Insignificant
Fire	1		1	1	Slight
Reactivity	0		0	2	Moderate
Personal Protection			B	3	High

The information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. You can contact us to insure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

BVA 13 ULV DILUENT

DANGER



May be fatal if swallowed and enters airways. Harmful if inhaled. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.

Keep product away from heat, sparks and all other sources of ignition. Electrically bond and ground transfer equipment, Use appropriately rated electrical equipment in areas where this material is handled and stored. Store in a cool area. Keep away from excessive heat and open flames. Keep containers closed when not in use. Store away from oxidizers. Empty containers retain product residues. Do not cut, weld, braze, etc. on or near empty containers. Follow all SDS precautions in handling empty containers.

READ SDS BEFORE USING PRODUCT

USA – Chemtrec: 800-424-9300

All Others – Chemtrec: +1-703-527-3887

CAS # MIXTURE

UN Number: Not Applicable

Date made 02-Jun-15

LOT # 123456789

QTY: 430 LBS (NET)

BVA

29222 Trident Industrial Blvd
New Hudson, MI. 48393 U.S.A.





SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT	
Product Name:	BVA 13 ULV Diluent
Product Description:	Mixture Highly Refined Mineral Oil Base Stock (oil) with Additives.
Intended Use:	Base Oil, ULV Diluent, Carrier, Lubricant, Hydraulic Fluid
COMPANY IDENTIFICATION	
Supplier	BVA Inc. 29222 Trident Industrial Blvd. New Hudson, MI 48165 USA +1-248-348-4920
Emergency telephone numbers	USA – Chemtrec: 800-424-9300 All Others – Chemtrec: +1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION
Please see Section 3 and 15 for country specific classification information, and Section 11 for additional details.
HEALTH HAZARDS
Aspiration toxicant: Category 1. Acute inhalation toxicant: Category 4.
Signal Word: Danger
GHS Symbol:

Health Hazards: May be fatal if swallowed and enters airways. Harmful if inhaled.
Precautionary Hazard - Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.
Precautionary Hazard - Storage: Store locked up.
Precautionary Hazard - Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
Other
EU Classification:
Signal Word: Danger
Risk Phrases: R20: Harmful by inhalation. R65: Harmful: may cause lung damage if swallowed.
Safety Phrases: S2: Keep out of the reach of children. S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label. <i>This information is based on test data from similar products. This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances / Preparations Directives. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.</i>
Note : <i>This information is based on test data from similar products.</i>

Product Name: BVA 13 ULV Diluent

Revision Date: 7 February 2015

Page 2 of 8

GHS and other international



This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Chemical Name: Mixture	CAS #	Percent (% wt)
The base oil may be a mixture of the Following: 1) Hydrotreated Distillate, Heavy Paraffin 2) Hydrotreated Distillate, Light Paraffin 3) Hydrotreated Neutral Oil 4) White Mineral Oil	The base oil may be a mixture of the Following CAS#s: 64742-54-7, 64742-55-8 72623-87-1 8042-47-5	90 -100%
Proprietary additives		0 - 5%
None		

SECTION 4 : FIRST AID MEASURES	
Inhalation:	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Skin:	Wash with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops get medical attention.
Eye :	Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion:	First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 : FIRE FIGHTING PROCEDURES						
EXTINGUISHING MEDIA	Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Inappropriate Extinguishing Media: Straight streams of water					
FIRE FIGHTING	Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel. Hazardous Combustion Products: Smoke, Fume, Carbon Monoxide, Aldehydes,					
FLAMMABILITY PROPERTIES	<table border="1" style="width: 100%;"> <tr> <td colspan="2">Flash Point ASTM D92 (open cup typical)</td> <td rowspan="2">Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D</td> </tr> <tr> <td style="width: 30%;">BVA 13</td> <td style="width: 30%;">160 (320)</td> </tr> </table> Autoignition Temperature: N/D	Flash Point ASTM D92 (open cup typical)		Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D	BVA 13	160 (320)
Flash Point ASTM D92 (open cup typical)		Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D				
BVA 13	160 (320)					

SECTION 6 : SPILL OR LEAK HANDLING PROCEDURES	
SPILL MANAGEMENT	<p>Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.</p> <p>Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.</p> <p>Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.</p>
ENVIRONMENTAL PRECAUTIONS	Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

Product Name: BVA 13 ULV Diluent

Revision Date: 7 February 2015

Page 3 of 8

GHS and other international



SECTION 7 : HANDLING AND STORAGE	
HANDLING	Prevent small spills and leakage to avoid slip hazard. Static Accumulator: This material is a static accumulator.
STORAGE	Do not store in open or unlabeled containers.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION	
Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m ³ - ACGIH TLV, 10 mg/m ³ - ACGIH STEL.	
Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s)	
ENGINEERING CONTROLS	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: No special requirements under ordinary conditions of use and with adequate ventilation
PERSONAL PROTECTION	Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.
Respiratory Protection:	Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: No special requirements under ordinary conditions of use and with adequate ventilation. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.
Hand Protection:	Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: No protection is ordinarily required under normal conditions of use.
Eye Protection:	If contact is likely, safety glasses with side shields are recommended.
Skin and Body Protection:	Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Specific Hygiene Measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
ENVIRONMENTAL CONTROLS	See Sections 6, 7, 12, 13.

SECTION 9 : PHYSICAL & CHEMICAL PROPERTIES			
Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.			
General Information		HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION	
Physical State	Liquid	Density at 20°C	0.856 - 0.862
Color	Clear colorless to pale yellow	Flash Point typical °C (°F)	>160 (320) See Section 5
Odor	Characteristic	Flammable Limits	LEL: N/D UEL: N/D
Odor Threshold	ND	Autoignition Temperature:	ND
		Boiling Point °C (°F)	>200 °C
OTHER INFORMATION		Vapor Density (Air=1)	NA
Pour Point °C (°F)	-40 (-40) or below	Vapor Pressure	< 0.013 kPa (0.1 mm Hg) at 20°C

Product Name: BVA 13 ULV Diluent

Revision Date: 7 February 2015

Page 4 of 8

GHS and other international



Freezing Point	ND	Evaporation Rate (N-Butyl Acetate = 1):	ND
Viscosity are +/- 10%		Solubility in Water	Nil
Viscosity	cSt at 40°C	Oxidizing Properties	See Sections 3, 15, 16.
BVA 13	13		

SECTION 10 : STABILITY & REACTIVITY	
STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Excessive heat. High energy sources of ignition.
MATERIALS TO AVOID:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:	Material does not decompose at ambient temperatures.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	
Potential acute health effects	
Inhalation : No known significant effects or critical hazards.	
Ingestion : No known significant effects or critical hazards.	
Skin contact : No known significant effects or critical hazards.	
Eye contact : No known significant effects or critical hazards.	
PRODUCT	
<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
INHALATION	
Toxicity: LC50 > 5000 mg/m ³	Minimally Toxic. Based on test data for structurally similar materials. Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
Irritation: No end point data.	
INGESTION	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity: LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Irritation: Data available.	
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS
For the product itself:
Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract.
Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.
CARCINOGENIC EFFECTS:
Contains no carcinogens. Similar compounds essentially non-toxic. No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA), NTP or IARC.



Although there is no specific test data on all the base oil components, the mineral base oil would not be expected to exhibit carcinogenic potential based on what is known of the toxicity of mineral base oils in general.

The DMSO extract by IP 346 of the oil is less than 3%. (Typical 0.2% with Maximum 0.5%) Consequently it is not classified as a carcinogen.

The base oil in this product is severely hydro-treated by all hydro-processing route. By this refining history would be showed no evidence of carcinogenic potential.

MUTAGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

TERATOGENIC EFFECTS/DEVELOPMENTAL TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

REPRODUCTION TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

Additional information is available by request.

OVER – EXPOSURE SIGNS/SYMPTOMS

Skin	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.

SECTION 12 : ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land.
Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

ECOLOGICAL DATA

Data for Highly Refined Severely Hydrotreated Base oil for similar materials

TEST	Duration	Organism Type	Test Results
Aquatic - Chronic Toxicity	21 day(s)	Water Flea	NOELR 1.05 mg/l: data for similar materials
	7 days	Fish	NOEC: > 5000mg/L (IUCLID Dataset)
	7 days	Aquatic Invertebrates,	NOEC: > 5000mg/L (IUCLID Dataset)

Care should be taken to minimize release of this product into the environment

Product Name: BVA 13 ULV Diluent

Revision Date: 7 February 2015

Page 6 of 8

GHS and other international



Environmental Fate & Distribution	No Data Available	Other Typical (not a specification)
Persistence & Degradation Toxicity	No Data Available	
Effect on Effluent Treatment	Product may be partially removed in biological treatment processes.	
		Acute Toxicity to Fish: No Data Available
		Effect Concentration on Algae: No Data Available
		Ready Biodegradability: No Data Available
		Respiration Inhibition: No Data Available
		Adsorption/Desorption: No Data Available
		Abiotic Degradability-Hydrolysis : Not measurable

SECTION 13 : DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

European Waste Code: 13 01 10

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14 : TRANSPORT INFORMATION

LAND (ADR/RID) : Not Regulated for Land Transport

INLAND WATERWAYS (ADNR) : Not Regulated for Inland Waterways Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

US DOT Classification: Not Regulated Marine Pollutant: Not a Pollutant Special Provisions for transport: None Identified	ICAO/IATA Classification Proper shipping name: Not regulated IATA Class UN number: Not regulated. Packing Group: Not regulated.
ADR/RID Classification UN number: Not regulated. Proper shipping name: Not regulated. ADR/RID Class: Not regulated. Packing Group: Not regulated.	IMO/IMDG Classification Proper shipping name: Not regulated IMDG Class: Not regulated UN number: Not regulated. Packing Group: Not regulated. Marine Pollutant: Not pollutant.

USA: No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warnings are not applicable for this product; therefore no OSHA Warnings would appear on the label. No EPA hazard classification code.

SECTION 15: Regulatory Information Product Component Ingredients

Europe

Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.



EU LABELING: Not regulated according to EC Directives Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives.

Classification and labeling have been performed according to EU Directives 67/548/EEC, 1999/45/EC and 2001/58/EC (including amendments) and the intended use.
 - Consumer applications.

United States

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances: None.

Section 304 CERCLA Hazardous Substances: None.

SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects: YES
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

Canada

WHMIS (Canadian Workplace Hazardous Materials Information System)

This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.

Germany: Water Hazardous Class (WGK): 1 (low hazard to water)

NATIONAL LEGISLATION / REGULATIONS

Ozone depleting chemicals: No ozone depleting chemicals are present or used in manufacture.

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: , DSL, ENCS, TSCA

Special:

Inventory	Status
AICS	All components are listed or exempted.
ELINCS	Restrictions Apply
IECSC	All components are listed or exempted.
KECI	All components are listed or exempted.
PICCS	All components are listed or exempted.

Detail U.S. Regulations	US INVENTORY (TSCA 8b): Listed on inventory. SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):: This product is not regulated under Section 302 of SARA and 40 CFR Part 355. SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):: Defined as Immediate (Acute) Health Effects by OSHA under 29 CFR 1910.1200(d). SARA 313 toxic chemical notification and release reporting: No products were found. CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: This material is not regulated under CERCLA Sections 103 and 107.
State Regulations	No products were found. California prop. 65: No products were found

SECTION 16: OTHER INFORMATION

This product safety data sheet was prepared in compliance Conforms to HazCom 2012/United States. Certain elements refer to Commission Directive 2001/58/EC , 91/155/EEC, 67/548/EEC and 1999/45/EC for reference, as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

Product Name: BVA 13 ULV Diluent

Revision Date: 7 February 2015

Page 8 of 8

GHS and other international



History

17 September 2011 – minor organization update toward GHS format

21 –March 2014 - moved NFPA and HMIS to section 16 for GHS update in format

Date of issue: 7- March 2015

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

N/D = Not determined, N/A = Not applicable

KEY TO THE RISK CODES CONTAINED IN SECTION 2 AND 3 OF THIS DOCUMENT (for information only):

EU

Risk Phrases:

R20: Harmful by inhalation.

R65: Harmful: may cause lung damage if swallowed.

Safety Phrases:

S2: Keep out of the reach of children.

S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

U.S.A. Hazardous Material Information System and National Fire Protection Association (U.S.A.)

Degree of Hazard	NFPA		HMIS		HAZARD RATINGS
Health	1		1		0 Insignificant
Fire	1		1		1 Slight
Reactivity	0		0		2 Moderate
Personal Protection			B		3 High

The information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. You can contact us to insure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.



COCOBEAR™ Mosquito Larvicide Oil

Kills larvae and pupa stages of mosquitoes. Physical control of mosquito broods: kills by suffocation - mosquitoes do not develop resistance. Prevents mosquito emergence.

Standing water treatment. Use on: ponds, pools, ditches, standing water within irrigated croplands and pastures, flood waters, and other listed areas where mosquitoes develop.

ACTIVE INGREDIENT

Mineral Oil*	10.0%
OTHER INGREDIENTS	90.0%
TOTAL	100.0%

* Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.
----------------------	--

NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State or tribal agency with primary authority for regulating pesticides before applying this product to public waters to determine if a permit is needed.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

This product may cause injury to plants in the treatment area. Stressed plants may be more susceptible.

COCOBEAR may only be used to control mosquito larvae and pupae. COCOBEAR leaves a thin film on the surface of treated, non-flowing water and kills mosquito larvae and pupae by suffocation. COCOBEAR kills immature mosquitoes where they develop.

This product may be used for surface applications to standing water within irrigated croplands and pastures, drainage areas, ditches, stagnant pools, swamps, marshes, temporary rain pools, sloughs, log ponds, open sewage basins, settling ponds, catch basins, waste tires and intermittently flooded areas.

Apply at uniform rates of 3 gallons per surface acre (for smaller areas, treat at 10 ounces per 1,000 sq. ft. or 1 1/2 quart per 5,000 sq. ft.). Where there is extremely dense vegetation or if the water to be treated is high in organic content, up to 5 gallons per acre (15 ounces per 1,000 sq. ft. or 2 quarts per 5,000 sq. ft.) may be used.

When applying by aerial application, adjust spray volume up to 5 gallons per acre dependent on vegetation and surface conditions. 3 gallons per acre (36 gallons per 100 ft swath mile) is likely to be sufficient for most conditions.

Spray Drift Management

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, and relative humidity) and method of application (e.g. ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply this product at wind speeds greater than 15 mph at the application site.

Droplet Size: Apply as a medium or coarser spray (ASABE Standard

572), and the minimum mean volume diameter (VMD) for spinning atomizer nozzles.

Temperature Inversions: Application is allowed under stable and/or temperature inversion conditions as long as application is done below the point in the atmosphere where the inversion begins and the droplet size meets the dimensions of very coarse or extremely coarse as defined in ASABE Standard 572 (VMD of 400-500 microns).

Release Height for Ground Applications: Apply using a nozzle height of no more than 4 feet above the surface.

Aerial Applications: Applications must conform to the requirements indicated above regarding wind speed, droplet size, and

temperature inversions and to the additional requirements listed below.

Release Height: Aircraft altitude should be maintained at the lowest altitude necessary for aircraft safety in order to reduce the exposure of droplets to evaporation and wind.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used. Orient nozzles to spray backward and parallel to the air stream.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the upwind and downwind edges of the application area by adjusting the path of the aircraft upwind.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store upright at room temperature. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

(REFILLABLE DRUMS & TOTES): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before disposal, drain the container until it is empty. Add a minimum amount of clean water to allow recirculation through the pump, meter and hoses. A commercial tank-cleaning detergent may be used, if desired. Thoroughly drench the interior sides, ceiling, and floor of the container. Using a steam-cleaning process or a high-pressure/low-water process, clean sides, ceiling, and floor of container. Recirculate wash water through the pump, meter and hoses. Drain the tank. Dispose of wash water or rinsate with pesticide waste. Offer cleaned container for recycling, if available, or puncture and dispose of it in a sanitary landfill, or by other procedures approved by State and local authorities.

(2.5 GALLON JUGS): Nonrefillable container. Do not reuse or refill this container. When container is empty, drain it completely, then puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172
For more information call: 1-800-323-5727

EPA REG. NO. 8329-93

Available Packaging: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, BULK

EPA EST. NO. _____

LOT NO: Marked on Container Label

COCOBEAR™ is a trademark of Clarke Mosquito Control Products, Inc.

NOTICE: To the extent consistent with applicable law, Clarke Mosquito Control Products, Inc. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 1 of 7

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: COCOBEAR®

EPA Registration Number: 8329-93

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of mosquito larvae and pupae

Uses advised against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214-7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

2.1 Classification of the Substance or Mixture

Aspiration Hazard: Category 1

Acute Toxicity (Inhalation): Category 4

Pictogram:



Signal Word:

Danger

Hazard Statements:

May be fatal if swallowed and enters airways.

Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing spray. Use only outdoors or in a well-ventilated area,

RESPONSE: If swallowed: Immediately call a poison control center or doctor. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 2 of 7

STORAGE: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL: Dispose of contents and container in accordance with local/regional/national regulations.

2.2 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Mineral Oil	8042-47-5	10.00

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Do NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Inhalation: Inhalation of vapors or mists may be irritating to the respiratory tract

Ingestion: Harmful if swallowed. Aspiration pneumonia hazard. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Contains petroleum distillate. Gastric lavage is indicated if material was taken internally. May pose an aspiration pneumonia hazard. Appropriate supportive and symptomatic treatment is indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: Water jet

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NO_x.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 3 of 7

Special Procedures: Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)

Environmental Precautions: Prevent product from entering into drains and waterways. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Soak up with absorbent, non-combustible material, such as sand, silica gel, clay, or sawdust, while using appropriate personal protection equipment. Collect material in appropriate container for disposal.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes. Avoid inhalation of vapors from product. Do not take internally.

Ensure that all equipment and tanks are cleaned from previous uses and dry before loading product. Do not mix product with water.

Hygiene Measures: Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove soiled clothing immediately and clean thoroughly before using again.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage: Store in a cool, well-ventilated place, preferably in the original container. Do not allow to come in contact with water during storage. If original container is not available or storing in a stationary bulk container or application equipment/tank, ensure storage container is clean, dry, sealed and free from leaks to prevent water from contacting the product. Do not mix with any other liquids or insecticidal products. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children. Product should be stored in compliance with local regulations.

Incompatibilities: Water, Moisture

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 4 of 7

8.1 Control Parameters

Component Name	CAS No.	List/Source	Type	Value
Mineral Oil	8042-47-5	ACGIH	TLV	5 mg/m ³ inhalable fraction
		NIOSH	REL	5 mg/m ³ form: mist
		OSHA	PEL	5 mg/m ³

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing including long-sleeve shirt, long pants, shoes and socks.

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as nitrile. Avoid natural or neoprene rubber. Promptly clean reusable gloves, if worn, and inspect for signs of damage, swelling, cracking, or brittleness. Replace damaged PPE immediately.

Respiratory Protection: None required under normal use of the product.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color:	Clear
Odor:	Detergent
Odor Threshold:	Not Available
pH:	Not Determined
Melting Point:	Not Applicable
Freezing Point:	Not Determined
Initial Boiling Point:	Not Determined
Flash Point:	> 95° C
Evaporation Rate:	Not Determined
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Determined
Vapor Density:	Not Determined
Relative Density:	7.24 lbs/gal
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	2.9 cps @ 40°C
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 5 of 7

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to avoid

Protect from direct sunlight, extreme heat, sparks, open flame.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous decomposition products

None known under normal conditions of storage and use

SECTION 11. Toxicological information

11.1 Information on Likely Routes of Exposure

Inhalation: May be harmful if inhaled

Ingestion: May be harmful if ingested.

May be fatal if swallowed and enters airways due to petroleum distillate. Vomiting may cause aspiration pneumonia.

11.2 Information on Toxicological Effects

Acute Toxicity/Effects

Oral, Rat LD₅₀ > 5,000 mg/kg-bw

Dermal, Rat LD₅₀ > 5,050 mg/kg-bw

Inhalation, Rat LC₅₀ > 2.16 mg/L

Skin Corrosion/Irritation: Not corrosive or irritating to the skin on acute exposure. Mild skin irritation or cracking may occur from prolonged or repeated exposure to this product.

Serious Eye Damage/Irritation: Not an eye irritant

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

Chronic Toxicity/Effects

Germ Cell Mutagenicity This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 6 of 7

Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. Highly-refined oils, such as Mineral Oil, are classified by IARC as Group 3 – Not classifiable as to its carcinogenicity to humans.
Reproductive Effects:	No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity.
STOT – Repeated exposure	No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from repeat exposure.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Mineral Oil

Toxicity to Fish:	No lethality in fish is observed in multiple studies of the aliphatic oils (mineral oil). The 96-hour LC50 of the fatty acid component to Bluegill is > 1000 mg/l.
Toxicity to Aquatic Invertebrates:	NOEC < 0.9 mg/l based on immobility, Water flea (<i>Daphnia magna</i>) LC50 >100 mg/l, Water flea (<i>Daphnia magna</i>)
Toxicity to Birds:	No lethality is observed in acute, oral, single-dose or sub-chronic dietary feeding tests in avian species. Acute oral toxicity in birds is > 2250 mg/kg-bw; Acute dietary toxicity is > 5620 ppm.

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

- 14.1 DOT (US)**
Not regulated (Bulk and Non-Bulk Quantities)
- 14.2 IMDG (Vessel)**
Not regulated
- 14.3 ICAO/IATA (Air transport)**
Not Regulated

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:



SAFETY DATA SHEET

COCOBEAR®

Effective Date: 03 March 2021

v.03

Page 7 of 7

Signal Word: CAUTION
KEEP OUT OF REACH OF CHILDREN

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.
---------------	--

NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

None

CERCLA RQ None

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

® COCOBEAR is a Registered Trademark of Clarke Mosquito Control Products, Inc.

End of document

ALL-WEATHER
BLOX™



CONTRAC®
ALL-WEATHER BLOX™

KILLS RATS, MICE & MEADOW VOLES*

Kills Warfarin Resistant Norway Rats

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See back panels for First Aid and additional precautionary statements.

ACTIVE INGREDIENT:

Bromadiolone (CAS #28772-56-7): 0.005%

OTHER INGREDIENTS†: 99.995%

†Contains Denatonium Benzoate TOTAL 100.000%

NET WT:
18 lbs (8.2 kg)

*Not permitted for use against the following species in California: Cotton rat, Eastern harvest mouse, Golden mouse, Polynesian rat, Meadow vole, White-throated woodrat, Southern plains woodrat, and Mexican woodrat

FIRST AID

HAVE LABEL WITH YOU WHEN OBTAINING TREATMENT ADVICE

IF SWALLOWED:

- Call a poison control center, doctor, or 1-877-854-2494, or 1-800-858-7378** immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15–20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center, doctor, or 1-877-854-2494 immediately for treatment advice.

** Also call this number for information on health concerns and pesticide incidents.

NOTE TO PHYSICIAN

If swallowed or absorbed through the skin, this material may reduce the clotting ability of the blood and cause bleeding. If ingested, administer Vitamin K₁ intramuscularly or orally. Repeat as necessary based on monitoring of prothrombin times.

TREATMENT FOR PET POISONING

If animal eats bait, call veterinarian at once.

NOTE TO VETERINARIAN

Anticoagulant Bromadiolone: For animals ingesting bait and/or showing poisoning signs (bleeding or elevated prothrombin times), give Vitamin K₁. If needed, check prothrombin times every 3 days until values return to normal (up to 30 days). In severe cases, blood transfusions may be needed.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ THIS LABEL: Read this entire label and follow all use directions and use precautions. Use only for sites, pests, and application methods described on this label.

IMPORTANT: Do not expose children, pets, or nontarget animals to rodenticides. To help to prevent exposure:

1. Store unused product out of reach of children and pets.
2. Apply bait in locations out of reach of children, pets, domestic animals and nontarget wildlife, or in tamper-resistant bait stations. These stations must be resistant to destruction by dogs and by children under six years of age, and must be used in a manner that prevents such children from reaching into bait compartments and obtaining bait. If bait can be shaken from bait stations when they are lifted, units must be secured or otherwise immobilized. Stronger bait stations are needed in areas open to hoofed livestock, raccoons, bears, or other potentially destructive animals, or in areas prone to vandalism.
3. Dispose of product container and unused, spoiled, or unconsumed bait as specified on this label.

Bait stations are mandatory for outdoor, above-ground use. Tamper-resistant bait stations must be used wherever children, pets, non-target mammals, or birds may have access to the bait placement location.

USE RESTRICTIONS: This product may only be used to control the following rodent pests in and around man-made structures: House mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), Roof rat (*Rattus rattus*), Cotton mouse (*Peromyscus gossypinus*), Cotton rat* (*Sigmodon hispidus*), Deer mouse (*Peromyscus maniculatus*), Eastern harvest mouse* (*Reithrodontomys humuli*), Golden mouse* (*Ochrotomys nuttalli*), Polynesian rat* (*Rattus exulans*), Meadow vole* (*Microtus pennsylvanicus*), White-footed mouse (*Peromyscus leucopus*), White-throated woodrat* (*Neotoma albigula*), Southern plains woodrat* (*Neotoma micropus*), and Mexican woodrat* (*Neotoma mexicana*). This product must be used in and within 100 feet of man-made structures constructed in a manner so as to be vulnerable to commensal rodent invasions and/or to harboring or attracting rodent infestations. Examples of such structures include homes and other permanent or temporary residences, food processing facilities, industrial and commercial buildings, trash receptacles, agricultural and public buildings, transport vehicles (ships, trains, aircraft), docks and port or terminal buildings and related structures around and associated with these sites. Fence and perimeter baiting, beyond 100 feet from a structure as defined above, is prohibited. This product must not be applied directly to food or feed crops.

587CB-10

CONTRAC®

ALL-WEATHER BLOX™

KILLS RATS, MICE, AND MEADOW VOLES*

Kills Warfarin Resistant Norway Rats

Norway rats, roof rats, and house mice may consume a lethal dose in one night's feeding with first dead rodents appearing four or five days after feeding begins.

ACTIVE INGREDIENT:

Bromadiolone (CAS #28772-56-7): 0.005%

OTHER INGREDIENTS†: 99.995%

†Contains Denatonium Benzoate TOTAL 100.000%

KEEP OUT OF REACH OF CHILDREN CAUTION

See side panels for First Aid and additional precautionary statements.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

Pesticide Disposal: Wastes resulting from the use of this product may be placed in trash or delivered to an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. [Plastic:] Offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill, or by incineration. In most states, burning is not allowed.

WARRANTY: To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

NET WEIGHT: 18 lbs (8.2 kg)

EPA REG. NO. 12455-79

EPA EST. NOS. 12455-WI-1K, 12455-WI-2P, 12455-WI-3W

Superscript is first letter of the lot number.

Manufactured by:

 **Bell**
LABORATORIES, INC.
3699 Kinsman Blvd.
Madison, WI 53704 U.S.A.
www.belllabs.com
MADE IN USA

DIRECTIONS FOR USE (Continued from other panel)

Burrow baiting with CONTRAC® All-Weather Blox is prohibited.

Do not place near or inside ventilation duct openings. Do not contaminate water, food, feedstuffs, food or feed handling equipment, or milk or meat handling equipment or surfaces that come into direct contact with food. When used in USDA inspected facilities, this product must be applied in tamper-resistant bait stations. Do not broadcast bait. Do not use this product in sewers.

Do not sell this product in individual containers holding less than 16 pounds of bait.

SELECTION OF TREATMENT AREAS: Determine areas where rats, mice, or meadow voles* will most likely find and consume the bait. Generally, these areas are along walls, by gnawed openings, in corners and concealed places, between floors and walls, or in locations where rats, mice, or meadow voles*, or their signs have been seen. Protect bait from rain and snow. Remove as much alternative food as possible.

APPLICATION DIRECTIONS:

RATS: Place 3 to 16 bait blocks (at intervals of 15 to 30 feet) per placement in infested areas. Maintain an uninterrupted supply of fresh bait for at least 10 days or until signs of rat activity cease.

MICE AND MEADOW VOLES*: Place 1 block per placement. Space placements at 8- to 12-foot intervals in infested areas. Two blocks may be needed at points of very high activity. Maintain an uninterrupted supply of fresh bait for at least 15 days or until signs of mouse or meadow vole* activity cease.

FOLLOW-UP: Replace contaminated or spoiled bait immediately. Wearing gloves, collect and dispose of all dead, exposed animals and leftover bait. To prevent reinfestation, limit sources of rodent food, water, and harborage as much as possible. If reinfestation does occur, repeat treatment. Where a continuous source of infestation is present, establish permanent bait stations and replenish as needed.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or absorbed through the skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing. All handlers (including applicators) must wear: shoes plus socks, and waterproof gloves. Any person who retrieves carcasses or unused bait following application of this product must wear gloves.

User Safety Requirements

Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish, birds and other wildlife. Dogs and predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply this product directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff also may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

*Not permitted for use against the following species in California: Cotton rat, Eastern harvest mouse, Golden mouse, Polynesian rat, Meadow vole, White-throated woodrat, Southern plains woodrat, and Mexican woodrat

Product Code: CB4051

121718/10-15





CONTRAC[®] ALL-WEATHER BLOX

SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA
Hazard Communication Standard 29 CFR 1910.1200

DATE OF ISSUE:
January 2020

PREPARED BY:
CAR

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: CONTRAC[®] ALL-WEATHER BLOX
EPA Registration Number: 12455-79
Relevant identified uses: Anticoagulant Rodenticide - Ready to use
Uses advised against: Use only for the purpose described above

MANUFACTURER/SUPPLIER:

Bell Laboratories, Inc.
3699 Kinsman Blvd.
Madison, WI 53704, USA
Email: sds@belllabs.com
Phone: 608-241-0202
Medical or Vet Emergency: 877-854-2494 or 952-852-4636
Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Classification according to Regulation OSHA 1910.1200(d): Not classified

Signal Word: None

See Section 15 for information on FIFRA applicable safety, health, and environmental classifications.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	% By weight
Bromadiolone [3-[3-(4'-Bromo-[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-1-benzopyran-2-one]	28772-56-7	0.005%
Inert and Non-Hazardous Ingredients (Unlisted components are non-hazardous)	Proprietary	99.995%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Ingestion: Call physician or emergency number immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting unless instructed by physician.

Inhalation: Not applicable.

Eye contact: Hold eye open and rinse slowly with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops, obtain medical assistance.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. If irritation develops, obtain medical assistance.

Most important symptoms and effects, both acute and delayed

Ingestion of excessive quantities may cause nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding.

Advice to physician: If ingested, administer Vitamin K₁ intramuscularly or orally as indicated for bishydroxycoumarin overdoses. Repeat as necessary as based upon monitoring of prothrombin times.

Advice to Veterinarian: For animals ingesting bait and/or showing poisoning signs (bleeding or elevated prothrombin times), give Vitamin K₁. If needed, check prothrombin times every 3 days until values return to normal (up to 30 days). In severe cases, blood transfusions may be needed.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media: water, foam or inert gas.

Unsuitable Extinguishing Media: None known.

Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide and traces of bromine and hydrogen bromide.

Advice for firefighters: Wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Gloves should be worn when handling the bait. Collect spillage without creating dust.

Environmental precautions: Do not allow bait to enter drains or water courses. Where there is contamination of streams, rivers or lakes contact the appropriate environment agency.

Methods and materials for containment and cleaning up

For Containment: Sweep up spilled material immediately. Place in properly labeled container for disposal or re-use.

For Cleaning Up: Wash contaminated surfaces with detergent. Dispose of all wastes in accordance with all local, regional and national regulations.

Reference to other sections: Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and disposal considerations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Do not use near heat sources, open flame, or hot surfaces. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Conditions for safe storage, including any incompatibilities: Store only in original container in a cool, dry place, inaccessible to pets and wildlife. Do not contaminate water, food or feed by storage or disposal. Keep containers closed and away from other chemicals.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Established Limits

Component	OSHA	ACGIH	Other Limits
Bromadiolone	Not Established	Not Established	Not Established

Appropriate Engineering Controls: Not required

Occupational exposure limits: Not established

Personal Protective Equipment:

Respiratory protection: Not required

Eye protection: Not required

Skin protection: Shoes plus socks, and waterproof gloves.

Hygiene recommendations: Wash thoroughly with soap and water after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance/Color:	Blue wax block
Odor:	Sweet grain-like
Odor Threshold:	No Data
pH:	No Data
Melting point:	No Data
Boiling point:	No Data
Flash point:	No Data
Evaporation rate:	No Data
Flammability:	No Data
Upper/lower flammability or explosive limits:	No Data
Vapor Pressure:	No Data
Vapor Density:	No Data
Relative Density:	1.13 g/mL @ 20°C
Solubility (water):	No Data
Solubility (solvents):	No Data
Partition coefficient: n-octanol/water:	No Data
Auto-ignition temperature:	No Data
Decomposition temperature:	No Data
Viscosity:	No Data

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable when stored in original container in a cool, dry location.

Chemical stability: Stable when stored in original container in a cool, dry location.

Possibility of hazardous reactions: Refer to Hazardous decomposition products

Conditions to avoid: Avoid extreme temperatures (below 0°C or above 40°C).

Incompatible materials: Avoid strongly alkaline materials.

Hazardous decomposition products: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide and traces of bromine and hydrogen bromide.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

LD50, oral (ingestion): >5000 mg/kg (rats) (Bromadiolone Rat LD50 oral: 0.70 mg/kg bw).

LD50, dermal (skin contact): > 5000 mg/kg (rats) (Bromadiolone rabbit LD50 dermal: 1.71 mg/kg bw).

LC50, inhalation: Product is a wax block and therefore exposure by inhalation is not relevant.

Skin corrosion/irritation: Not irritating to skin.

Serious eye damage/Irritation: Not irritating to eyes.

Respiratory or skin sensitization: Dermal sensitization: Not a Sensitizer (Guinea pig maximization test).

Germ cell mutagenicity: Contains no components known to have a mutagenetic effect.

Carcinogenicity: Contains no components known to have a carcinogenetic effect.

Components	NTP	IARC	OSHA
Bromadiolone	Not listed	Not listed	Not listed

Reproductive Toxicity: No data

Aspiration Hazard: Not applicable. Product is a wax block.

Target Organ Effects: Reduced blood clotting ability.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: This product is extremely toxic to birds and mammals. Do not apply this product directly to water, where surface water is present or to intertidal areas below the mean high water mark. Carefully follow label cautions and directions to reduce hazards to children, pets and non-target wildlife.

Persistence and degradability: Product is inherently biodegradable.

Bioaccumulative potential: Not determined. Bromadiolone water solubility is extremely low (< 0.1mg/l).

Mobility in Soil: Not determined. Mobility of bromadiolone in soil is considered to be limited.

Other adverse effects: None.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

Pesticide Disposal: Wastes resulting from the use of this product according to the label instructions must be disposed of as specified on the product label. **RCRA waste status:** This product is not regulated as a hazardous waste under Federal law. State and local regulation may affect the disposal of this product. Consult your state or local environmental agency for disposal of waste generated other than by use according to label instructions.

Container Handling: Non-refillable container. Do not reuse or refill this container. [Plastic:] Offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; or by incineration. In most states, burning is not allowed. [Paper:] Dispose of empty container by placing in trash, at an approved waste disposal facility or by incineration. In most states, burning is not allowed.

RCRA Waste Status: This product is not regulated as a hazardous waste under Federal law.

SECTION 14. TRANSPORT INFORMATION

UN number: Not regulated

UN proper shipping name: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental Hazards

DOT Road/Rail: Not considered hazardous for transportation via road/rail.

DOT Maritime: Not considered hazardous for transportation by vessel.

DOT Air: Not considered hazardous for transportation by air.

Freight Classification: LTL Class 60

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

Special precautions for user: None

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

FIFRA: This pesticide product is regulated by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The safety, health, environmental, and hazard information required on the pesticide label is listed below and reflected throughout this SDS. The pesticide label also includes other important information, including directions for use.

Signal Word: CAUTION

Precautionary Statements: Contains the anticoagulant Bromadiolone which may cause bleeding if ingested. Harmful if swallowed or absorbed through the skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing.

Potential Health Effects:

Eye Contact: May cause irritation

Skin Contact: Non-irritating to the skin

Ingestion: Harmful if swallowed

TSCA: All components are listed on the TSCA Inventory or are not subject to TSCA requirements

CERCLA/SARA 313: Not listed

CERCLA/SARA 302: Not listed

PROPOSITION 65: Contains no components subject to warning requirement.

SECTION 16. OTHER INFORMATION

For additional information, please contact the manufacturer noted in Section 1.

NFPA	Health: 1 (caution)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
HMIS	Health: 2 (moderate)	Flammability: 1 (slight)	Reactivity: 0 (minimal)	Protective Equipment: B

Disclaimer: The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Bell Laboratories, Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all current data, including the approved product label, relevant to their particular use.



DeltA Gard®

INSECTICIDE

FOR WIDE AREA MOSQUITO CONTROL OR FLY AND MOSQUITO CONTROL USE ONLY BY FEDERAL, STATE, TRIBAL, OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY, OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION, OR AS ALLOWED BY STATE REGULATIONS FOR PERSONS TREATING PRIVATE PROPERTY.

- Provides Quick Knockdown and Effective Control of Mosquitoes, Flies, Gnats, and Non-Biting Midges
- A FFAST™ Formulation
- May be Applied Undiluted or Diluted in Water

ACTIVE INGREDIENT:

Deltamethrin 2.0%

OTHER INGREDIENTS : 98.0%

TOTAL : 100.0%

Contains 0.17 pounds of Deltamethrin per gallon

EPA Reg. No. 432-1534

PARA EL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN CAUTION

See Back Panel for First Aid Instructions and Booklet for Complete Precautionary Statements and Directions for Use.

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day
1-800-334-7577

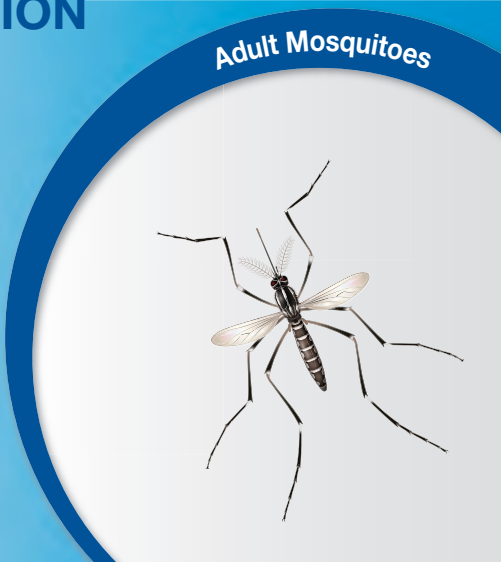
For **PRODUCT USE** Information Call
1-800-331-2867



Net Contents
2.5 Gallons

SKU# 81005699

80970226B 170717AV1



FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for immediate treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

User Safety Requirements

Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Runoff from treated areas into a body of water may be hazardous to fish and aquatic invertebrates.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes, or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate water when disposing of equipment rinsate or wash waters.

When used for mosquito adulticiding;

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging the treatment area, except when applications are made to prevent or control a threat to public and / or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

When applied outdoors for fly control;

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging the treatment area.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply by aircraft.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

SHAKE OR AGITATE THOROUGHLY BEFORE USE: Product (either diluted or undiluted) must be thoroughly agitated before use. Avoid prolonged storage of excess formulation in application equipment.

NOTICE: This concentrate is for dilution with water only; it cannot be diluted in oil.

APPLICATION INSTRUCTIONS

Apply this product with hand-held, backpack, portable, and truck mounted Ultra-Low Volume (ULV) sprayers and portable and vehicle mounted mist-blowers for wide area applications, to control adult mosquitoes, black flies, gnats, non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies or blow flies. Do not exceed 0.036 pounds of AI per acre per year to any site.

WIDE AREA AND SPACE SPRAY APPLICATION FOR MOSQUITO CONTROL OVER NON CROP AREAS

During any three day period do not apply more than 0.00134 lb a.i./A. Do not make more than 25 applications per site per year at the high rate of 0.00134 lb ai/A. More frequent applications and more than 25 applications per site may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence

of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DeltaGard Insecticide is approved for application as an Ultra-Low Volume (ULV) aerosol to control flying or resting adult mosquitoes (including mosquitoes that may transmit Zika, Dengue, Chikungunya, and West Nile virus) in residential, industrial, urban, recreational, and municipal areas where adult mosquitoes are found. This product is used for control of mosquitoes in areas such as residential areas, industrial areas, urban areas (such as utility tunnels, sewers, storm drains and catch basins, pipe chases, basements, underground passages, parking decks, crawl spaces, or uninhabited buildings), parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, **swamps*, marshes*, tidal areas***, corrals, feed lots, swine lots, poultry ranges, zoos, animal quarters, barns, dumps, junkyards, tire dumps, and other areas where adult mosquitoes may be found.

***Application to these use sites not allowed in California.**

For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended. Apply when wind speed is equal to or greater than 1 mph.

APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS

This product may be applied over any and all crops or agricultural areas, (including row, tree, fruit, citrus, pasture, rangeland, and other areas where agricultural enterprises take place) for the control of adult mosquitoes within or adjacent to the treatment areas, or to areas where drift over cropland could occur. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 0.0134 lb ai per acre per year, with no more than one application in any three day interval. Maximum number of applications per year depends on the application rate used; 10 applications at 0.00134 lb ai/A, 15 applications at 0.00089 lb ai/A, or 30 applications at 0.00045 lb ai/A. More frequent applications and more than 0.0134 lb. ai per acre per year per site may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DROPLET SIZE DETERMINATION FOR GROUND APPLICATION EQUIPMENT

This proprietary FFAST (Film Forming Aqueous Spray Technology) formulation greatly reduces the evaporation rate of water from the sprayed droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. This enables the spray droplets to maintain optimum size and stability while drifting through the target area.

Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8 - 30 microns ($8\mu \leq D_{V,0.5} \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{V,0.9} < 50\mu$). Directions from the equipment manufacturer or vendor or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

ULV NON-THERMAL AEROSOL (COLD FOG):

Apply through any non-thermal ULV application equipment capable of producing the required droplet spectrum. Base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.00134 pounds of deltamethrin per acre in any given 3 day interval. An optimum swath is created when this product is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.

This product may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of this product, the flow rate of the insecticide from the application equipment, and the vehicle speed. Examples are given in the following table:

**Flow Rate based on a 300 foot swath width
(Fluid Ounces Per Minute)**

Application Rate (lb deltamethrin / Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 3	Diluted 1 + 4
0.00045	5	1.01	2.02	3.03	4.04	5.05
	10	2.02	4.04	6.06	8.08	10.11
	15	3.03	6.06	9.10	12.13	15.16
	20	4.04	8.08	12.13	16.17	20.21
0.00089	5	2.02	4.04	6.06	8.08	10.11
	10	4.04	8.08	12.13	16.17	20.21
	15	6.06	12.13	18.19	24.25	30.32
	20	8.08	16.17	24.25	32.34	40.42
0.00134	5	3.04	6.09	9.13	12.17	15.22
	10	6.09	12.17	18.26	24.34	30.43
	15	9.13	18.26	27.39	36.52	45.65
	20	12.17	24.34	36.52	48.69	60.86

Where dense vegetation or a public health emergency is present, the use of the highest label rate is recommended. When targeting organophosphate resistant or other difficult to control species of mosquitoes or flies use of the high label rate is recommended.

PORTABLE, BACKPACK OR HAND CARRIED ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. At a pace of 2 MPH (2.9 ft/sec) apply 1 ounce per minute of DeltaGard Insecticide diluted as follows: for an application rate of 0.00045 pounds of Deltamethrin per acre dilute 1 to 14, for an application rate of 0.00089 pounds of deltamethrin per acre dilute 1 to 6.5, for an application rate of 0.00134 pounds of deltamethrin per acre dilute 1 to 4. Based on the above dilution and application rates apply 5 ounces of diluted product while walking 870 feet (290 yards).

APPLICATION FOR FLY CONTROL

DeltaGard Insecticide is approved for application as an Ultra-Low Volume (ULV) aerosol to control flying or resting adult flies in residential, industrial, urban, recreational, and municipal areas where flies are found. This product is used for control of flies in areas such as residential areas, industrial areas, urban areas (such as utility tunnels, pipe chases, basements, underground passages, parking decks, crawl spaces, or uninhabited buildings), parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, corrals, feed lots, swine lots, poultry ranges, zoos, animal quarters, barns, dumps, junkyards, tire dumps, and other areas where flies may be found.

Apply this product with hand-held, backpack, portable, and truck mounted ULV sprayers and portable and vehicle mounted mist-blowers for area applications, to control, black flies, gnats, non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance pests such as face flies or blow flies. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8 - 30 microns ($8\mu \leq Dv0.5 \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($Dv 0.9 < 50\mu$).

For the treatment of livestock and poultry facilities (e.g., cattle, dairy and livestock barns, goat houses, horse stables/barns, loafing sheds, poultry houses, shade houses, stables, swine houses, feedlots, manure piles, swine yards, corrals, stockyards, holding pens, and other animal facilities) where flies become pests and quick knockdown is needed.

This product may be applied undiluted, but to maximize efficacy against larger fly species (e.g., blow flies, filth flies) it is recommended to dilute in water (1 + 1) before application, increasing the droplet density in the ULV cloud.

Indoors, reduce air movement as much as possible before applying by closing doors, windows and other openings; if animals are present, ventilate the treated area immediately following application. When treating indoors, cover any exposed drinking water, drinking fountains, and animal feed before application. Outdoors, apply when insects are most active, usually in late afternoon when there is little wind. Pay particular attention to areas where flies congregate, such as around feed bunks, fences, and on the exterior walls of buildings. Animals may be present during treatment.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE

USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Bayer (reg'd), the Bayer Cross (reg'd), DELTAGARD® and FFAST™ are registered trademarks of Bayer.

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

Bayer



DeltaGard®

INSECTICIDE

ACTIVE INGREDIENT:

Deltamethrin2.0%

OTHER INGREDIENTS :.....98.0%

TOTAL : 100.0%

Contains 0.17 pounds of Deltamethrin per gallon
EPA Reg. No. 432-1534

PARA EL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN CAUTION

See Panel for First Aid Instructions and Booklet for Complete Precautionary Statements and Directions for Use.

For **MEDICAL** and **TRANSPORTATION Emergencies**
ONLY Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867

FIRST AID

If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for immediate treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

User Safety Requirements

Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Runoff from treated areas into a body of water may be hazardous to fish and aquatic invertebrates.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes, or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate water when disposing of equipment rinsate or wash waters.

When used for mosquito adulticiding:

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging the treatment area, except when applications are made to prevent or control a threat to public and / or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

When applied outdoors for fly control:

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging the treatment area.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Net Contents
2.5 Gallons
SKU# 81005699
80970226B 170717AV1

Bayer

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

(01)00785740232255

PULL HERE TO OPEN

Product of India

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

1/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name DELTAGARD® INSECTICIDE

Product code (UVP) 81015694

SDS Number 102000025884

EPA Registration No. 432-1534

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Skin sensitisation: Category 1B

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

May cause an allergic skin reaction.

Precautionary statements

Avoid breathing mist and spray.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

2/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

IF ON SKIN: Wash with plenty of water/ soap.
If skin irritation or rash occurs: Get medical advice/ attention.
Specific treatment (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Deltamethrin	52918-63-5	2.0
Trade Secret Ingredient(s)		1.35

Identity and specific percent composition of one or more Trade Secret materials is being withheld.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

3/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
------------------	---

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Water spray, Foam, Carbon dioxide (CO ₂), Dry chemical
-----------------	--

Unsuitable	None known.
-------------------	-------------

Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
--	---

Advice for firefighters

Special protective equipment for firefighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
--	--

Further information	Fight fire from upwind position. Keep out of smoke. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
----------------------------	--

Flash point	No data available
--------------------	-------------------

Auto-ignition temperature	No data available
----------------------------------	-------------------

Lower explosion limit	No data available
------------------------------	-------------------

Upper explosion limit	No data available
------------------------------	-------------------

Explosivity	Not applicable
--------------------	----------------

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
--------------------	--

Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
--------------------------------	---

Additional advice	Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.
--------------------------	--

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

4/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation. Ensure adequate ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Additional advice

This product contains material which are Trade Secret and may have Occupational Exposure Limits.

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection Chemical resistant nitrile rubber gloves

Eye protection Safety glasses with side-shields

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

5/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	emulsion
Odor	characteristic
Odour Threshold	No data available
pH	4.0 - 7.0 at 100 %
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Density	1.02 g/cm ³
Evaporation rate	No data available
Boiling Point	No data available
Melting / Freezing Point	No data available
Water solubility	dispersible
Minimum Ignition Energy	Not applicable
Decomposition temperature	Not applicable
Partition coefficient: n-octanol/water	No data available
Viscosity	135 - 500 cps
Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

6/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Not applicable
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Inhalation, Ingestion, Eye contact

Immediate Effects

Eye Causes eye irritation.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (Rat) 3,129 mg/kg

Acute inhalation toxicity LC50 (Rat) > 5.07 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

Acute dermal toxicity LD50 (Rabbit) > 5,000 mg/kg

Skin irritation No skin irritation (Rabbit)

Eye irritation Mild eye irritation. (Rabbit)

Sensitisation Sensitising (Mouse)
OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – repeated exposure

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

7/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

ACGIH

None.

NTP

None.

IARC

Deltamethrin 52918-63-5 Overall evaluation: 3

OSHA

None.

Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.00091 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.00056 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic plants	EC50 (Algae) > 9.1 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Biodegradability	Deltamethrin: Not rapidly biodegradable
Koc	Deltamethrin: Koc: 10240000
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

8/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Do not re-use empty containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
IATA	
UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

9/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

SECTION 15: REGULATORY INFORMATION

This product contains material(s) which are Trade Secret and are on various Regulatory Lists. These material(s) are not listed below.

EPA Registration No. 432-1534

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

SAFETY DATA SHEET



DELTAGARD® INSECTICIDE

Version 3.0 / USA
102000025884

10/10
Revision Date: 04/05/2017
Print Date: 04/06/2017

Signal word: Caution!

Hazard statements: Harmful if swallowed.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification.
Section 3: Composition / Information on Ingredients.

Revision Date: 04/05/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



Distance® FIRE ANT BAIT

EFFECTIVE IN THE CONTROL OF THE RED IMPORTED FIRE ANT AND THE BIG-HEADED ANT
EASY TO USE GRANULAR FORMULATION
(Insect Growth Regulator)

ACTIVE INGREDIENT

2-[1-Methyl-2-(4-phenoxyphenoxy)ethoxy] pyridine.....	0.50%
OTHER INGREDIENTS.....	99.50%
TOTAL	100.00%

EPA Reg. No. 1021-1728-59639 EPA Est. 2217-KS-2

KEEP OUT OF REACH OF CHILDREN CAUTION

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eye-wear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water. For terrestrial uses, do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of waste.

STOP: READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Avoid contamination of food or feedstuffs.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forest, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

For other uses, do not enter treated areas until any dusts have settled.

PRODUCT DESCRIPTION

Distance® Fire Ant Bait is a slow acting, highly effective fire ant control product. Fire ant workers pick up the bait granules and take them back to the colony. Workers feed the bait to both the queen and the immature fire ants thereby preventing worker replacement. Due to degeneration of reproductive organs, the fire ant queen cannot replace workers. The lack of worker replacement results in colony death as the existing worker ants age and die. Within 3 to 4 weeks there is substantial colony mortality and within eight weeks the majority of the colony population has been eliminated.

WHERE TO USE

For best results, follow directions for specific use areas.

- This product may be used in the following areas:
Indoor and outdoor container or field grown ornamentals in commercial nurseries (including trees, shrubs, flowers, evergreens, foliage plants, and ground covers); ornamental tree farms; non-bearing nut, non-bearing citrus, and other non-bearing fruit trees grown in nurseries; non-grazed pasture and rangeland; conifers and conifer nurseries; sod farms.
- Residential/domestic sites, defined as areas associated with the household or home life including, but not limited to, apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, hospitals, or convalescent homes.
- Uncultivated, non-agricultural areas, including airports, roadsides, highway rights-of-way, utility rights-of-way, campgrounds, and industrial sites.
- Institutional sites defined as areas around properties or facilities providing a service to public or private organizations including, but not limited to, hospitals, nursing homes, schools, universities, colleges, museums, libraries, sport facilities (golf courses), and office buildings.

WHEN TO APPLY

Distance Fire Ant Bait should be applied in the early Spring or Summer at the first sign of fire ant activity. Applications may be made any time of the day but is more effective when ants are actively foraging, usually when the soil temperature is above 60° F. Avoid application if rain is expected within 4 to 6 hours. Do not water treated area for 24 hours after application. In the event of prolonged rains after initial treatment, re-application may be necessary.

A second application of Distance Fire Ant Bait may be advisable after 12 to 16 weeks in areas of heavy infestations, or when the mounds remain active, or when a re-infestation occurs. In large mounds, some worker fire ants may persist for a while after the queen is dead. For 7-10 days after treatment, do not apply any other fire ant pesticide. This is to allow sufficient time for the worker ants to seek out the bait and take it back to the mound. After 14 days, it may be desirable to apply a registered fire ant pesticide to kill remaining foraging ants.

APPLICATION RATES FOR FIRE ANTS

INDIVIDUAL MOUND TREATMENT: Do not disturb the mound. Do not apply to top of mounds. Apply 1 to 4 level tablespoons of Distance Fire Ant Bait per mound, uniformly distributing material 3 to 4 feet around the mound. Re-treat after 12 to 16 weeks if needed.

BROADCAST OR AERIAL APPLICATION: Apply uniformly with ground or aerial equipment calibrated to give the correct dosage. Apply at 1 to 1.5 pounds of product per acre or the equivalent rate of 0.35 to 0.5 ounces per 1,000 square feet. Re-treat after 12 to 16 weeks if needed.

APPLICATION RATES FOR BIG-HEADED ANT (*Pheidole megacephala*)

Apply uniformly with ground or hand-held equipment calibrated to deliver the correct dosage. Apply at 1 to 1.5 pounds of product per acre (or 0.35 to 0.5 ounces per 1,000 square feet). Treat surrounding areas, adjacent borders, and fence lines to help prevent ant migration into the treated areas. Repeat after 12 to 16 weeks if needed.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture
(continued)

(continued)

conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, **THEN THIS PRODUCT SHOULD NOT BE APPLIED.** By applying this product Buyer acknowledges and accepts these inherent unintended risks **AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.**

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY

(continued)

(continued)

AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability**, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE

Store in a cool, dry area. Always store pesticide in the original container. Store away from food and pet food.

PESTICIDE DISPOSAL AND CONTAINER HANDLING

Nonrefillable bag. Do not reuse or refill the bag. Completely empty bag. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Distance and Products That Work, From People Who Care are registered trademarks of Valent U.S.A. Corporation

Manufactured for
Valent U.S.A. Corporation

P.O. Box 8025
Walnut Creek CA 94596-8025
Form 1364-F

Made in U.S.A.
EPA Reg. No. 1021-1728-59639
EPA Est. 2217-KS-2

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-89-VALENT (898-2536).



For state registration and/or supplemental labels, please call or visit us online.

Products That Work, From People Who Care® | www.valentpro.com | 800-89-VALENT (898-2536)

Always read and follow label instructions.

©2011 Valent U.S.A. Corporation. All rights reserved. Printed in the U.S.A.



Safety Data Sheet

DISTANCE® Fire Ant Bait

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: DISTANCE® Fire Ant Bait
EPA REGISTRATION NUMBER: 1021-1728-59639
VC NUMBER(S): 1392
SYNONYM(S): NYLAR Fire Ant Bait
PRODUCT DESCRIPTION: Insecticide
Distance is a registered trademark of Valent U.S.A. Corporation

MANUFACTURER/DISTRIBUTOR
VALENT U.S.A. CORPORATION
P.O. Box 8025
1600 Riviera Avenue, Suite 200
Walnut Creek, CA 94596-8025

EMERGENCY TELEPHONE NUMBERS
HEALTH EMERGENCY OR SPILL (24 hr):
(800) 892-0099
TRANSPORTATION (24 hr.): CHEMTREC
(800) 424-9300 or (202) 483-7616

PRODUCT INFORMATION
AGRICULTURAL PRODUCTS: (800) 682-5368

The current SDS is available through our website (www.valent.com), or by calling the product information numbers listed above.

2. HAZARDS IDENTIFICATION

For EPA FIFRA-specific information see Section 15

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Label elements

EMERGENCY OVERVIEW

Precautionary Statements - Prevention

Read product label prior to using this product. For specific handling instruction refer to Section 7, Handling and Storage

Precautionary Statements - Response

See Section 4, First Aid Measures

Emergency Telephone: (800) 892-0099
REVISION NUMBER: 1

SDS NO.: 0223
REVISION DATE: 05/26/2015

Precautionary Statements - Storage

For information on Storage and Handling see Section 7.

Precautionary Statements - Disposal

For further information on product and container disposal see Section 13.

Hazards not otherwise classified (HNOC)**Other Information**

- Harmful to aquatic life
- Harmful to aquatic life with long lasting effects

For information on Transportation requirements see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	TRADE SECRET
Pyriproxyfen	95737-68-1	0.5	
Others	No CAS#	99.5	

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **(800) 892-0099** at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

EYE CONTACT:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN CONTACT:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN:

None

5. FIRE FIGHTING MEASURES

Flash point °F Not applicable
 FLASH POINT METHOD: Not applicable
 EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical
 FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable
 FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable

NFPA RATING:

Health: 1
 Flammability: 2
 Reactivity: 0
 Special: None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING INSTRUCTIONS: Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce: Oxides of nitrogen. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER: (800) 892-0099
CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300
OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION

Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

UN/NA NUMBER: Not applicable **EMERGENCY RESPONSE GUIDEBOOK NO.:** Not applicable

FOR SPILLS ON LAND:

CONTAINMENT: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water.

CLEANUP: Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

FOR SPILLS IN WATER:

CONTAINMENT: This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

CLEANUP: Remove contaminated water for treatment or disposal.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

HANDLING:

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Wear protective clothing and equipment when handling this product. Goggles or protective eyewear, gloves, long-sleeved shirt, long pants, socks and shoes are appropriate. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

STORAGE:

Do not contaminate water, food or feed by storage or disposal. Keep in original container. Keep this product in its tightly closed original container when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves.

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Pyriproxyfen	None	None	None
Others	Not known	Not known	Not known

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid	Odor	Mild Soybean oil odor
Appearance	Flakes (corn grits)	Odor threshold	No information available
Color	Golden		

<u>PROPERTIES</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	Not applicable	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limits	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	No information available	

Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Density	No information available
Bulk density	20 lb/ft ³

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral Toxicity LD ₅₀ (rats)	>5000 mg/kg	EPA Tox Category	IV
Dermal Toxicity LD ₅₀ (rabbits)	>2000 mg/kg	EPA Tox Category	III
Inhalation Toxicity LC ₅₀ (rats)	Minimally toxic	EPA Tox Category	IV
Eye Irritation (rabbits)	Brief and/or minor irritation	EPA Tox Category	III
Skin Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical Name	IARC	OSHA - Select Carcinogens	NTP Carcinogen List
Pyriproxyfen	Not listed	Not listed	Not listed
Others	Not Known	Not listed	Not known

TOXICITY OF PYRIPROXYFEN TECHNICAL

SUBCHRONIC: Subchronic oral toxicity studies conducted with Pyriproxyfen Technical in the rat, mouse and dog indicate a low level of toxicity. Effects observed at high dose levels consisted primarily of decreased body weight; increased liver weights; histopathological changes in the liver and kidney; decreased red blood cell counts, hemoglobin and hematocrit; altered blood chemistry parameters; and, at 5000 and 10000 ppm in mice, a decrease in survival rates. The NOELs from these studies were 1000 ppm (149.4 mg/kg/day) in mice, 100 mg/kg/day in dogs and 400 ppm (23.5 mg/kg/day) in rats. In a 4 week inhalation study of Pyriproxyfen Technical in rats, decreased body weight and increased water consumption was observed at 1000 mg/m³. The NOEL in this study was 482 mg/m³. A 21-day dermal toxicity study in rats with Pyriproxyfen Technical did not produce any signs of dermal or systemic toxicity at 1000 mg/kg/day.

CHRONIC/CARCINOGENICITY: Pyriproxyfen Technical has been tested in chronic studies with dogs, rats and mice. Dogs exposed to dose levels of 300 mg/kg/day or higher for 52 weeks showed overt clinical signs of toxicity, elevated levels of blood enzymes and liver damage. The NOEL in this study was 100 mg/kg/day. In a 78 week study in mice, dietary levels of 3000 ppm or greater produced gross and histopathological changes in the kidney. The NOEL in this study was 600 ppm. In a 2-year study in rats, dietary levels of 3000 ppm or greater produced decreased body weights in female rats. The NOEL in the rat study was 600 ppm. No oncogenic response was produced in mice or rats.

DEVELOPMENTAL TOXICITY: Tests for developmental toxicity in rats and rabbits were conducted with Pyriproxyfen Technical. In the study conducted with rats, maternal toxicity (mortality, decreased body weight gain and food consumption and clinical signs of toxicity) was observed at doses of 300 mg/kg/day and greater. The maternal NOEL was 100 mg/kg/day. A transient increase in skeletal variations was observed in rat fetuses exposed to 300 mg/kg/day and greater. The NOEL for prenatal developmental toxicity was 100 mg/kg/day. An increased incidence of visceral and skeletal variations was observed postnatally at 1000 mg/kg/day. The NOEL for postnatal developmental toxicity was 300 mg/kg/day. In the study conducted with rabbits, maternal toxicity (clinical signs of toxicity including one death, decreased body weight gain and food consumption, and abortions or premature deliveries) was observed at oral doses of 300 mg/kg/day or higher. The maternal NOEL was 100 mg/kg/day. No developmental effects were observed in the rabbit fetuses. The NOEL for developmental toxicity in rabbits was 1000 mg/kg/day.

REPRODUCTION: A dietary rat reproduction study was conducted with Pyriproxyfen Technical. Systemic toxicity (reduced body weights, histopathological changes in the liver and kidney, and increased liver weight) was produced at 5000 ppm. The systemic NOEL was 1000 ppm. No effects on reproduction were produced even at 5000 ppm, the highest dose tested.

MUTAGENICITY: Pyriproxyfen Technical was negative in the following tests for mutagenicity: Ames Assay with and without S9, unscheduled DNA synthesis in HeLa S3 cells, *in vitro* gene mutation in V79 Chinese hamster cells, and *in vitro* chromosomal aberration in Chinese hamster ovary cells.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AVIAN TOXICITY:

Pyriproxyfen Technical is practically non-toxic to avian species. Test results include:

Oral LD₅₀ mallard duck: greater than 2000 mg/kg
Oral LD₅₀ bobwhite quail: greater than 2000 mg/kg
Dietary LC₅₀ mallard duck: greater than 5200 ppm
Dietary LC₅₀ bobwhite quail: greater than 5200 ppm
Reproduction bobwhite quail: NOEC = 600 ppm
Reproduction mallard duck: NOEC = 600 ppm

AQUATIC ORGANISM TOXICITY: Pyriproxyfen Technical is moderately to highly toxic to fish and moderately to very highly toxic to aquatic invertebrate species. Test results include:

Freshwater species:

LC₅₀ (96 hr) Bluegill Sunfish: greater than 270 µg/L

LC₅₀ (96 hr) Rainbow Trout: greater than 325 µg/L

LC₅₀ (21 day) Rainbow Trout: 90 µg/L

LC₅₀ (96 hr) Carp: 450 µg/L

LC₅₀ (96 hr) Killifish: 2660 µg/L

EC₅₀ (48 hr) Daphnia magna: 400 µg/L

MATC (21 day) Daphnia magna: 20 ppt;

MATC (Early Life Cycle) Rainbow Trout: 5.4 µg/L

Estuarine species:

LC₅₀ (96 hr) Sheepshead Minnow: greater than 1.02 ppm;

LC₅₀ (96 hr) Mysid Shrimp: 65 ppb;

EC₅₀ (96 hr) Oyster Shell Deposition: 92 ppb.

OTHER NON-TARGET ORGANISM TOXICITY:

Pyriproxyfen Technical is practically non-toxic to bees. The acute contact LC₅₀ in bees was greater than 100 µg/bee.

OTHER ENVIRONMENTAL INFORMATION:

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. See Directions for Use on product label for additional precautions and restrictions.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Non-refillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer bag for recycling if available. If recycling is not available, then dispose of empty bag in a sanitary landfill or by incinerations, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations.

14. TRANSPORTATION INFORMATION

DOT (ground) SHIPPING NAME: Not regulated for domestic ground transport by U.S. DOT

EMERGENCY RESPONSE

GUIDEBOOK NO.: Not applicable

ICAO/IATA SHIPPING NAME:	UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Pyriproxyfen), 9, III, Marine Pollutant
REMARKS:	•Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations – see IATA Special Provision A197 •For US shipping, Emergency Response Guidebook No. 171
IMDG SHIPPING NAME:	UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Pyriproxyfen), 9, III, Marine Pollutant
REMARKS:	•Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations – see IMDG 2.10.2.7 •For US shipping, Emergency Response Guidebook No. 171
EMS NO.:	F-A, S-F

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

This material is a pesticide product registered by the EPA under FIFRA and is subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

EPA FIFRA SIGNAL WORD: CAUTION

- *Causes moderate eye irritation*
- *Avoid contact with eyes, skin and clothing*
- *Keep out of reach of children.*

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	Yes
Fire:	No
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated information to meet OSHA Hazcom 2012 (GHS) regulations.
SDS NO.: 0223
EPA REGISTRATION NUMBER: 1021-1728-59639
REVISION NUMBER: 1
REVISION DATE: 05/26/2015
SUPERCEDES DATE: None
RESPONSIBLE PERSON(S): Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

The information in this SDS is based on data available to us as of the revision date given herein, and believed to be correct. Contact Valent U.S.A. Corporation to confirm if you have the most current SDS.

Judgments as to the suitability of information herein for the individual's own use or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, Valent extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

2015 Valent U.S.A. Corporation



DUET™ Dual-Action Adulticide

A Quick Knockdown, Oil Soluble Synergized Synthetic Pyrethroid for Effective Control of Adult Mosquitoes, Gnats, Biting and Non-Biting Midges, and Blackflies in Outdoor Residential and Recreational Areas.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

ACTIVE INGREDIENTS:

Prallethrin: (RS)-2-methyl-4-oxo-3-(2-propynyl) cyclopent-2-enyl-(1RS)-cis, trans-chrysanthemate	1.00%
Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	5.00%
* Piperonyl Butoxide	5.00%
** OTHER INGREDIENTS	89.00%
	100.00%

Contains 0.0717 pounds of Prallethrin/Gallon, 0.359 pounds of Sumithrin®/Gallon and 0.359 pounds of Piperonyl Butoxide (PBO)/Gallon

*(butylcarbityl)(6-propylpiperonyl) ether and related compounds

**Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID

IF SWALLOWED:

- Immediately call a poison control center or doctor.
- Do not induce vomiting unless told to do so by a poison control center or a doctor.
- Do not give **any** liquid to the person.
- Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Contains petroleum distillates - vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Mixers, loaders, applicators, and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinseate or wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture & Consumer Services.

Do not treat a site with more than 0.0036 lb of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs prallethrin per acre in a single application or in any 24-hour period. Do not apply more than 0.0108 lb each of Sumithrin and piperonyl butoxide and 0.0022 lb prallethrin to the same treatment area in a 7 day period. Do not apply more than 0.0216 lb each of Sumithrin and piperonyl butoxide and 0.0043 lb prallethrin to the same treatment area in 1 month. Do not exceed 0.1 lb of Sumithrin or piperonyl butoxide or 0.02 lb prallethrin per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing piperonyl butoxide, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems. Not for use in metered release systems.

DUET cannot be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

USE INFORMATION

DUET is approved for application as a thermal aerosol and as an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

DUET may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

SPRAY DROPLET SIZE DETERMINATION

Ground-based, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Equipment, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 um). The effects of flight speed and, for non-rotary atomizers, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND ULV APPLICATION

To control Mosquitoes and other listed insects, apply DUET at a flow rate of 2.6 to 7.8 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than or equal to 1 mph. All types of applications should be conducted at temperatures above 50 °F. Under normal residential conditions a flow rate of 4.8 fluid ounces per minute is recommended. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00024 to 0.00072 pounds of Prallethrin and 0.0012 to 0.0036 pounds of Sumithrin® and Piperonyl Butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are

high. DUET may also be diluted with a suitable solvent such as mineral oil and applied by GROUND ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Use the following tables to calculate application rates:

Pounds a.i./Acre			DUET Fl.oz./Acre	Flow Rates in fluid oz./minute at truck speeds of:			
Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
0.00072	0.0036	0.0036	1.28	3.9	7.8	11.7	15.6
0.00044	0.0022	0.0022	0.79	2.4	4.8	7.1	9.5
0.00036	0.0018	0.0018	0.64	1.9	3.9	5.8	7.8
0.00024	0.0012	0.0012	0.43	1.3	2.6	3.9	5.2

DUET may be applied through truck mounted thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph. To reduce oil requirement and sludge buildup in equipment, use a 60-100-second viscosity mineral "fog" oil or other fuel-type oil. Use a clean, well-maintained and properly calibrated fogger. Do not wet foliage since oil base formulations may be phytotoxic.

AERIAL APPLICATION

DUET may be applied at rates of 0.43 to 1.28 fluid ounces of DUET per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Appropriate spray systems include rotary atomizers, flat fan, high pressure, and high pressure impaction nozzles characterized and oriented to achieve the droplet characteristics specified in this label. DUET may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs. When making aerial application at an altitude of less than 100 feet, apply only when wind speed at altitude is greater than or equal to 5 mph. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

[For 2.5-gallon Jugs]: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For refillable drums & totes]: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

DUET™ is a trademark of Clarke Mosquito Control Products, Inc.

Sumithrin™ is a trademark of Sumitomo Company Ltd.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

DILUTION CALCULATIONS

For a 4% Sumithrin product, dilute 1 gallon DUET with 0.25 gallon oil. Finished spray contains 0.29 lbs Sumithrin & PBO and 0.06 lbs Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	1.61	4.9	9.7	14.6	19.5
Recommended	0.00044	0.0022	0.0022	0.98	3.0	5.9	8.9	11.9
Light Population	0.00036	0.0018	0.0018	0.80	2.4	4.9	7.3	9.7
	0.00024	0.0012	0.0012	0.54	1.6	3.2	4.9	6.5

For a 2.5% Sumithrin product, dilute 1 gallon DUET with 1 gallon oil. Finished spray contains 0.179 lbs Sumithrin & PBO and 0.036 lbs Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	2.57	7.8	15.6	23.4	31.1
Recommended	0.00044	0.0022	0.0022	1.57	4.8	9.5	14.3	19.0
Light Population	0.00036	0.0018	0.0018	1.28	3.9	7.8	11.7	15.6
	0.00024	0.0012	0.0012	0.86	2.6	5.2	7.8	10.4

For a 2% Sumithrin product, dilute 1 gallon DUET with 1.5 gallons oil. Finished spray contains 0.143 lbs Sumithrin & PBO and 0.029 lbs Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	3.21	9.7	19.5	29.2	38.9
Recommended	0.00044	0.0022	0.0022	1.96	5.9	11.9	17.8	23.8
Light Population	0.00036	0.0018	0.0018	1.61	4.9	9.7	14.6	19.5
	0.00024	0.0012	0.0012	1.07	3.2	6.5	9.7	13.0

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL TOTE

LOT NO.: Marked on Container Label

EPA REG. NO.: 1021-1795-8329

EPA EST. NO.: _____



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 1 of 8

SECTION 1. Identification of the Substance/Mixture and of the Company

Product Identifier

Formulation Identifier: DUET[®] Dual-Action Adulticide

EPA Registration Number: 1021-1795-8329

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: An insecticide for mosquito and vector control

Uses advised against: See product label for use restrictions

Details of the Supplier

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall@: (888) 740-8712 or (952) 852-9509

24 Hour TRANSPORTATION Emergency: CHEMTREC@: (800)-424-9300

International: (703) 527-3887

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4

Aspiration Toxicity: Category 1

Pictogram:



Signal Word: DANGER

Hazard Statements: Harmful if inhaled.

May be fatal if swallowed and enters airways.

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray. Use only outdoors or in well-ventilated area.

RESPONSE: IF INHALED- Remove victim to fresh air and keep at rest in a position for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Immediately call a poison center/doctor. Do NOT induce vomiting.

STORAGE: Store locked up in a well ventilated place. Keep container tightly closed.

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 2 of 8

Comments: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1), and the GHS

SECTION 3. Composition/Information on Ingredients

Components

Substance Name	CAS No.	Concentration % w/w
ETOC [®] (Prallethrin)	23031-36-9	1.0
SUMITHRIN [®] (d-Phenothrin)	26002-80-2	5.0
Piperonyl Butoxide	51-03-6	5.0
Petroleum Distillates, hydrotreated light	64742-47-8	10-20 *
White Mineral Oil	8042-47-5	50-75 *

* The exact percentage (concentration) of composition has been withheld as trade secret.

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

Description of First Aid Measures

- Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.
- Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.
- Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Indication of Immediate Medical Attention and Special Treatment

Notes to Physician: Contains Pyrethroids and Petroleum Distillates – vomiting may pose an aspiration hazard. For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

SECTION 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

Explosion data:

Sensitivity to Mechanical Impact: None

Sensitivity to static discharge: Yes, use proper bonding and/or grounding procedures.

Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special Procedures: Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 3 of 8

appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and Material for Containment and Cleaning Up

Methods for containment: Prevent further leakage of spillage if safe to do so. Move containers from spill area.

Small spill: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Large Spill: Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. Handling and Storage

Precautions for Safe Handling

Protective measures: Wear a long-sleeved shirt, long pants, shoes and socks. Take prudent precautions to avoid contact with skin, eyes, and clothing. Mechanical ventilation should be used when handling this product in enclosed spaces. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a cool, dry place. Keep container closed. Always store pesticides in the original container. Store away from food and pet food. Keep out of reach of children.

Electrostatic Accumulation Hazard: This product contains petroleum distillates for which there is potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading, and transfer of this product.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

Control Parameters

Component Name	CAS No.	List	Type	Value
ETOC [®] (Prallethrin)	23031-36-9	OSHA; ACGIH		None
SUMITHRIN [®] (d-Phenothrin)	026002-80	OSHA; ACGIH		None
Piperonyl Butoxide	51-03-6	OSHA; ACGIH		None
Petroleum Distillates	64742-47-8	OSHA & ACGIH	TLV/TWA (as oil-mist, if generated)	5 mg/m ³



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 4 of 8

Mineral Oil	8042-47-5	OSHA & ACGIH	PEL / TLV, TWA (oil mist, mineral)	5 mg/m ³
-------------	-----------	--------------	------------------------------------	---------------------

Exposure controls

Engineering Controls: Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations..

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield. Take prudent precautions to avoid contact with eyes.

Skin Protection: Wear a long-sleeved shirt and long pants, shoes and socks.

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

SECTION 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance:	Clear, yellow-colored liquid
Color:	1.0 on Gardner Scale
Odor:	Solvent odor
Odor Threshold:	No information available
pH:	Not applicable. Product is not miscible in water
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F) (Tag Closed Cup)
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Relative Density:	No information available
Specific Gravity (Water = 1)	0.860 @ 20°C (68°F)
Solubility:	Immiscible
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Viscosity:	18 cPs @ 22.0°C (71.6°F) Brookfield
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	<1.000%

SECTION 10. Stability and Reactivity

Reactivity

No data available

Chemical Stability



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 5 of 8

Stable under recommended normal storage conditions

Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions
Hazardous Polymerization: Hazardous polymerization does not occur

Conditions to avoid Extremes of temperature and direct sunlight

Incompatible materials Not compatible with strong acids and bases. Not compatible with oxidizing agents.

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

SECTION 11. Toxicological information

Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation

May be fatal if swallowed and enters airways due to petroleum distillate. Vomiting may cause aspiration pneumonia.

Information on Toxicological Effects

Acute Toxicity / Effects

Assessment of acute toxicity: Slightly toxic after ingestion. Relatively non-toxic after short-term inhalation. Moderately toxic after short term skin contact. Some or all of the toxicity data reported is bridged from a substantially similar formula.

Oral, (Rat) LD₅₀ >5,000 mg/kg

Dermal, (Rabbit) LD₅₀ >2,000 mg/kg

Inhalation, Rat LC₅₀ >2.04 mg/l (4 hours)

Skin Corrosion/Irritation: Slight irritation at 72 hours. Irritation Index = 0.92

Serious Eye Damage/Irritation: Irritation clearing in 24 hours.

Skin Sensitization: Negative; Not considered to be a dermal sensitizer (Buehler).

Conditions aggravated by exposure: None known

Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.

Reproductive Effects: This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.

STOT – Single exposure Not classified

STOT – Repeated exposure Not classified

SECTION 12. Ecological Information

Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 6 of 8

Toxicity to Fish: d-Phenothrin 96-hr Acute LC₅₀ 16.7 µg/L (rainbow trout), 15.8 µg/L (bluegill sunfish)
PBO: 96-hour Acute LC₅₀ 6/12 ppm (rainbow trout)
Prallethrin LC₅₀ 0.012 mg/L (rainbow trout)

Toxicity to Aquatic Invertebrates: d-Phenothrin 48-hr LC₅₀ 4.4 µg/L *Daphnia magna*
d-Phenothrin 48-hr LC₅₀ 0.025 µg/L *Mysidopsis bahia*
PBO: 96-hr LC₅₀ 0.49 ppm, *Americamysis bahia*
Prallethrin 48-hr EC₅₀ 0.0062 mg/L *Daphnia*

Toxicity to Plants: No data available

Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO

Biodegradability: Not readily biodegradable (by OECD criteria)

Bioconcentration Factor: d-Phenothrin: 592 (edible), 4,000 (non-edible)
PBO: 2, 175
Prallethrin: no data available

Log Kow: d-Phenothrin: 6
PBO: 4.95
Prallethrin: 4.49

Depuration: d-Phenothrin, PBO: 2-4 days

Mobility in Soil: d-Phenothrin has low water solubility and binds tightly to soil. Based on these properties, d-phenothrin is relatively immobile in soil and its potential to contaminate groundwater is low.

PBO is not very soluble in water and adheres moderately to soil with organic matter.

Prallethrin is not very water soluble and adheres moderately with organic material. The hazard for prallethrin to move off the site of application with rain or irrigation is rated moderate.

SECTION 13. Disposal Considerations

Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

DOT (US) Not regulated

IMDG (Vessel)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

ICAO/IATA (Air transport)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 7 of 8

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word: CAUTION

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

User safety requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Engineering controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

FIRST AID

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or a doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Note to physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents call 1-888-740-8712.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) health hazard

Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
26002-80-2	d-phenothrin	5.0
51-03-6	piperonyl butoxide	5.0

CERCLA RQ: None

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.



SAFETY DATA SHEET

DUET[®] Dual-Action Adulticide

Effective Date: 1 June 2015

v.01

Page 8 of 8

SECTION 16. Other Information

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NFPA Health Hazards 2
Flammability 1
Instability 0
Physical and Chemical Properties –

HMIS Health Hazards 1
Flammability 1
Physical Hazards 0
Personal Protection X

[™] DUET is a Trademark of Clarke Mosquito Control Products, Inc.
© Sumithrin is a Registered Trademark of Sumitomo Company Ltd.
© ETOC is a Registered Trademark of Sumitomo Company Ltd.

End of document



Esteem[®]

ANT BAIT

(Insect Growth Regulator)

Active Ingredient	By Wt
*Pyriproxyfen.....	0.50%
Other Ingredients.....	99.50%
Total	100.00%

*2-[1-methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine

EPA Reg. No. 59639-114
 EPA Est. 2217-KS-2[®], 61842-CA-1[®]
 Superscript is first letter of lot number.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BELOW FOR ADDITIONAL
 PRECAUTIONARY STATEMENTS.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin, inhaled or swallowed. Causes moderate eye irritation. Avoid contact with skin, clothing or eyes. Avoid breathing dust.

FIRST AID

- If on skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

(continued)

FIRST AID (continued)

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt, long pants, waterproof gloves and socks plus shoes.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

- Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
 - Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
 - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to

your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and Restricted-Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls over long-sleeved shirt and long pants, waterproof gloves and socks plus shoes.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product,

(continued)

(continued)

cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks and TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT

(continued)

(continued)

SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability**, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management purposes, Esteem® Ant Bait is a group 7C insecticide. Any insect population may contain individuals naturally resistant to *Esteem* Ant Bait and other 7C insecticides. The resistant individuals dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by
(continued)

(continued)

Esteem Ant Bait or other 7C group insecticides, although local experts should be consulted for local resistance recommendations. The classification scheme is based on mode of action. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioral changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite this, alternation of compounds from different chemical classes remains a viable management technique.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same chemical subgroup.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

For further information contact your local distributor.

GENERAL INFORMATION

- **Do not apply this product through any type of irrigation system.**

Esteem Ant Bait is an Insect Growth Regulator similar to naturally occurring insect growth hormones which interfere with (stops) their growth or development. *Esteem* Ant Bait breaks the reproductive life cycle of the ants, causing starvation of the colony. *Esteem* Ant Bait is a slow acting, highly effective ant control product. Worker ants pick up the bait granules and take them back to the colony. Workers feed the bait to both the ant queen and the immature ants thereby preventing worker replacement. Due to degeneration of reproductive organs, the queen cannot replace workers. The lack of worker ant replacement results in colony death as the existing worker ants age and die. Within 3 to 4 weeks there is substantial colony mortality and within 8 weeks the majority of the colony population has been eliminated.

NON CROP AREAS

Agricultural sites, defined as areas associated with the farm, such as: The areas around farm houses, barns, agricultural equipment and farm irrigation equipment.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Ants Big-Headed Ant Imported Fire Ant Native Fire Ant Pavement Ant Red Imported Fire Ant Southern (California) Fire Ant	1.0 to 2.0 lb	<p>Broadcast or Aerial Application: Apply uniformly with ground or aerial equipment calibrated to give the correct dosage. Repeat after 12 to 16 weeks if needed.</p> <p>WHEN TO APPLY Apply <i>Esteem</i> Ant Bait in the early Spring or Summer at the first sign of ant activity. Applications may be made any time of the day but are more effective when ants are actively foraging, usually when the soil temperature is above 60° F. Avoid application if rain is expected within 4 to 6 hours. Do not water treated area for 24 hours after application. In the event of prolonged rains after initial treatment, reapplication may be necessary.</p> <p>A second application of <i>Esteem</i> Ant Bait may be advisable after 12 to 16 weeks in areas of heavy infestations, or when the mounds remain active, or when a reinfestation occurs. In large mounds, some worker ants may persist for a while after the queen is dead. For 7 to 10 days after treatment, do not apply any other ant pesticide. This is to allow sufficient time for the worker ants to seek out the bait and take it back to the mound. After 14 days, it may be desirable to apply a registered ant pesticide to kill remaining foraging ants.</p> <p>Individual Mound Treatment: Apply 2 to 4 level Tbsp of <i>Esteem</i> Ant Bait per mound, uniformly distributing material 3 to 4 ft around the mound. Do not disturb the mound. Do not apply to top of mounds. Repeat after 12 to 16 weeks if needed.</p>

FOOD AND FEED CROPS

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<p>For Crop Groups (See Crop Group Descriptions): Berry (Low Growing, except Strawberry)¹ Brassica (Cole) Leafy Vegetables Bulb Vegetables² Bushberry Caneberry¹ Cereal Grains¹ Citrus Fruits Cucurbits Foliage of Legume Vegetables¹ Fruiting Vegetables Herb¹ Leafy Vegetables (except Brassica Vegetables)¹ Leaves of Root and Tuber Vegetables¹ Legume Vegetables (Succulent or Dried)³ Nongrass Animal Feeds¹ Pome Fruit Root and Tuber Vegetables¹ Small Fruit Vine Climbing Crops (except Grape)¹ Stone Fruit Tree Nuts Tropical & Subtropical Fruits</p> <p>Individual Crops: Artichoke (Globe)¹ Asparagus¹ Banana¹ Cacao Bean¹ Canola, seed only¹ Coffee¹ Cotton Dates¹ Figs Grape Olives Pasture Grass Paw Paw¹ Peanuts¹ Pineapple¹ Plantain¹ Pomegranate¹ Rangeland¹ Safflower, seed only¹ Sesame, seed only¹ Strawberry Sugarcane¹ Tea¹ Watercress¹ White Sapote</p>	<p>Ants Big-Headed Ant Imported Fire Ant Native Fire Ant Pavement Ant Red Imported Fire Ant Southern (California) Fire Ant</p>	<p>1.5 to 2.0 lb</p>	<p>Broadcast or Aerial Application: Apply uniformly with ground or aerial equipment calibrated to give the correct dosage. Repeat after 12 to 16 weeks if needed.</p> <p>WHEN TO APPLY Apply <i>Esteem</i> Ant Bait in the early Spring or Summer at the first sign of ant activity. Applications may be made any time of the day but are more effective when ants are actively foraging, usually when the soil temperature is above 60° F. Avoid application if rain is expected within 4 to 6 hours. Do not water treated area for 24 hours after application. In the event of prolonged rains after initial treatment, reapplication may be necessary.</p> <p>A second application of <i>Esteem</i> Ant Bait may be advisable after 12 to 16 weeks in areas of heavy infestations, or when the mounds remain active, or when a reinfestation occurs. In large mounds, some worker ants may persist for a while after the queen is dead. For 7 to 10 days after treatment, do not apply any other ant pesticide. This is to allow sufficient time for the worker ants to seek out the bait and take it back to the mound. After 14 days, it may be desirable to apply a registered ant pesticide to kill remaining foraging ants.</p> <p>Bearing Almond Timing: In bearing almond orchards apply at 6 to 8 weeks prior to harvest to protect fallen nuts. Repeat after 12 to 16 weeks if needed.</p> <p>Individual Mound Treatment: Apply 2 to 4 level Tbsp of <i>Esteem</i> Ant Bait per mound, uniformly distributing material 3 to 4 ft around the mound. Do not disturb the mound. Do not apply to top of mounds. Repeat after 12 to 16 weeks if needed.</p>

(continued)

FOOD AND FEED CROPS (continued)

¹Not for use in California.

²See Crop Group Description for bulb vegetables.

³Not for use on soybeans in California.

- For all crops except Pasture Grass and Rangeland do not apply within 24 hours of harvest.
- For Pasture Grass and Rangeland the Pre-Harvest Interval (PHI) is zero (0) days.
- For Pasture Grass and Rangeland: Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.
- Regardless of formulation, the maximum amount of pyriproxyfen that may be applied per acre per season is as follows:

For Cacao Bean, Canola, Cereal Grains, Coffee, Dates, Nongrass Animal Feeds, Peanuts, Safflower, Sesame, Sugarcane, Tea, do not exceed 0.040 lb pyriproxyfen per acre per season.

For Fig, do not exceed 0.043 lb pyriproxyfen per acre per season.

For Cotton, do not exceed 0.067 lb pyriproxyfen per acre per season.

For Fruiting Vegetables, Leaves of Root and Tuber Vegetables and Root and Tuber Vegetables, do not exceed 0.109 lb pyriproxyfen per acre per season.

For Artichoke, Asparagus, Banana, Brassica Leafy Vegetables, Bulb Vegetables, Citrus, Cucurbits, Foliage of Legume Vegetables, Herb, Leafy Vegetables (except Brassica Vegetables), Legume Vegetables (Succulent and Dried), Pasture Grass, Pineapple, Plantain, Pomegranate, Rangeland, Strawberry, Watercress, White Sapote, do not exceed 0.134 lb pyriproxyfen per acre per season.

For Berry (Low growing, except Strawberry), Bushberry, Caneberry, Grapes, Olives, Pome Fruits, Small Fruit Vine Climbing Crops (except Grape), Tree Nuts, Tropical & Subtropical Fruits, do not exceed 0.218 lb pyriproxyfen per acre per season.

For Paw Paw, Stone Fruit, do not exceed 0.327 lb pyriproxyfen per acre per season.

CROP GROUP DESCRIPTIONS

Berry (Low Growing, Except Strawberry) – **Crop Group 13-07H:** Bearberry; Bilberry; Blueberry, lowbush; Cloudberry; Cranberry; Lingonberry; Muntries; Partridgeberry; Cultivars, varieties, and/or hybrids of these

Brassica (Cole) Leafy Vegetables – **Crop Group 5:** Broccoli; Broccoli, Chinese (gailon); Broccoli Raab (rapini); Brussels Sprouts; Cabbage; Cabbage, Chinese bok choy and napa; Cauliflower; Cavalo Broccoli; Chinese Mustard (gai choy); Collards; Kale; Kohlrabi; Mizuna; Mustard Greens; Mustard Spinach; Rape Greens

Bulb Vegetables – **Crop Group 3-07:** Chive, fresh leaves¹; Chive, Chinese, fresh leaves¹; Daylily, bulb; Elegans hosta¹; Fritillaria, bulb; Fritillaria, leaves¹; Garlic bulb; Garlic great-headed bulb; Garlic, serpent bulb; Kurrat¹; Lady's leek¹; Leek¹; Leek, wild¹; Lily bulb; Onion, Beltsville bunching¹; Onion, bulb; Onion, Chinese, bulb; Onion, fresh¹; Onion, green¹; Onion, macrostem¹; Onion, pearl; Onion, potato, bulb; Onion, tree, tops¹; Onion, Welsh, tops¹; Shallot bulb; Shallot, fresh leaves¹; Cultivars, varieties, and/or hybrids of these

Bushberry – **Subgroup 13-07B:** Aronia berry; Blueberry, highbush; Blueberry, lowbush; Buffalo currant; Chilean guava; Cranberry, highbush; Currant, black; Currant, red; Elderberry; European barberry; Gooseberry; Honeysuckle, edible; Huckleberry; Jostaberry; Juneberry (Saskatoon berry); Lingonberry; Native currant, Salal; Sea buckthorn; Cultivars, varieties, and/or hybrids of these

Caneberry – **Subgroup 13-07A:** Blackberry (including Bingleberry; Black Satin Berry; Boysenberry; Cherokee blackberry; Chesterberry; Cheyenne blackberry; Coryberry; Darrowberry; Dewberry; Dirksen thornless berry; Himalayaberry; Hullberry; Lavacaberry; Lowberry; Lucretiaberry; Mammoth blackberry; Marionberry; Nectarberry; Olallieberry; Oregon evergreen berry; Phenomenalberry; Rangerberry; Ravenberry; Rosberry and Shawnee Blackberry); Youngberry; Loganberry; Raspberry (including Bababerry; Black Raspberry; Blackcap; Caneberry; Framboise; Frambueso; Himbeere; Keriberry; Mayberry; Red Raspberry; Thimbleberry; Tulameen and Yellow raspberry); Wild raspberry; Cultivars, varieties, and/or hybrids of these

Cereal Grains – **Crop Group 15:** Barley; Buckwheat; Corn; Millet, pearl; Millet, proso; Oats; Popcorn; Rice; Rye; Sorghum; Teosinte; Triticale; Wheat; Wild Rice

Citrus Fruits – **Crop Group 10-10:** Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; Calamondin, Citron; Citrus hybrids; Grapefruit; Japanese summer grapefruit; Kumquat; Lemon; Lime; Mediterranean mandarin; Mount white lime; New Guinea wild lime; Orange, sour; Orange, sweet; Pummelo; Russell River lime; Satsuma mandarin; Sweet lime; Tachibana orange; Tahiti lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliate orange; Uniq fruit; Cultivars, varieties, and/or hybrids of these

Cucurbits – **Crop Group 9:** Chayote (fruit); Chinese Waxgourd (Chinese preserving melon) Citron Melon; Cucumber; Gherkin; Gourd, edible (includes Hyo-

¹Not for use in California.

tan, Cucuzza, Hechima; Chinese Okra); *Momordica* spp. (including Balsam Apple; Balsam Pear; Bittermelon; Chinese Cucumber); Muskmelon (includes Cantaloupe); Pumpkin, Squash, summer; Squash, winter (includes Butternut Squash, Calabaza, Hubbard Squash, Acorn Squash, Spaghetti Squash); Watermelon

Foliage of Legume Vegetables – Crop Group 7: Plant parts of any legume vegetable included in the legume vegetables that will be used as animal feed. Any cultivar of bean (*Phaseolus*) field pea (*Pisum*).

Fruiting Vegetables (Except Cucurbits) – Crop Group 8-10: African eggplant; Bush tomato; Bell pepper; Cocona; Currant tomato; Eggplant; Garden huckleberry; Goji berry; Ground Cherry; Martynia; Naranjilla; Okra; Pea eggplant; Pepino; Pepper, bell; Pepper, nonbell; Roselle; Scarlet eggplant; Sunberry; Tomatillo; Tomato; Tree tomato; Cultivars, varieties, and/or hybrids of these

Herb – Subgroup 19A: Angelica; Balm; Basil; Borage; Burnet; Chamomile; Catnip; Chervil (dried); Chive; Chive, Chinese; Clary; Coriander (leaf); Costmary; Cilantro (leaf); Curry (leaf); Dillweed; Horehound; Hyssop; Lavender; Lemongrass; Lovage (leaf); Marigold; Marjoram; Nasturtium; Parsley (dried); Pennyroyal; Rosemary; Rue; Sage; Savory, summer and winter; Sweet bay; Tansy; Tarragon; Thyme; Wintergreen; Woodruff; Wormwood

Leafy Vegetables (Except Brassica Vegetables) – Crop Group 4: Amaranth (Chinese Spinach); Arugula (Roquette); Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, Edible-leaved; Chrysanthemum, Garland; Corn Salad; Cress, Garden; Cress, Upland; Dandelion; Dock (Sorrel); Endive (Escarole); Fennel, Florence; Lettuce, Head and Leaf; Orach; Parsley; Purslane, Garden; Purslane, Winter; Radicchio (Red Chicory); Rhubarb; Spinach; Spinach, New Zealand; Spinach, Vine; Swiss Chard

Leaves of Root and Tuber Vegetables (Human Food or Animal Feed) – Crop Group 2: Beet, Garden; Beet, Sugar; Burdock, Edible; Carrot; Cassava (Bitter and Sweet); Celery; Chervil; Turnip-rooted; Chicory; Dasheen (taro); Parsnip; Radish; Radish, Oriental (daikon); Rutabaga; Salsify, Black; Sweet Potato; Tanier; Turnip; Yam, True

Legume Vegetables (Succulent or Dried) – Crop Group 6: Bean (*Lupinus* spp.) includes Grain Lupin, Sweet Lupin, White Lupin and White Sweet Lupin; Bean (*Phaseolus* spp.) includes Field Bean, Kidney

Bean, Lima Bean, Navy Bean, Pinto Bean, Runner Bean, Snap Bean, Tepary Bean, Wax Bean; Bean (*Vigna* spp.) includes Adzuki Bean, Asparagus Bean, Blackeyed pea, Catjang, Chinese Longbean, Cowpea, Crowder pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean, Yardlong Bean; Broad Bean (Fava); Chickpea (Garbanzo); Guar; Jackbean; Lablab Bean; Lentil; Pea (*Pisum* spp.) includes Dwarf Pea, Edible-podded Pea, English Pea, Field Pea, Garden Pea, Green Pea, Snow Pea, Sugar Snap Pea; Pigeon Pea; Soybean¹, Sword Bean

Nongrass Animal Feeds (Forage, Fodder, Straw and Hay) – Crop Group 18: Alfalfa; Clover; Crown Vetch; Kudzu; Lespedeza; Lupin; Milk Vetch; Sainfoin; Trefoil; Velvet Bean; Vetch

Pome Fruit – Crop Group 11-10: Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; Cultivars, varieties, and/or hybrids of these

Root and Tuber Vegetables – Crop Group 1: Arracacha; Arrowroot; Artichoke (Chinese and Jerusalem); Bean Yam; Beet (garden and sugar); Black Salsify; Carrot; Cassava (bitter and sweet); Celery; Chayote (root); Chicory; Chufa; Dasheen (taro); Edible Burdock; Edible Canna; Ginger; Ginseng; Horseradish; Leren; Oriental Radish; Parsnip; Potato; Radish; Rutabaga; Salsify; Spanish Salsify; Skirret; Sweet Potato; Tanier; True Yam; Turmeric; Turnip; Turnip-rooted Chervil; Turnip-rooted Parsley

Small Fruit Vine Climbing Crops (Except Grape) – Subgroup 13-07E: Amur River Grape; Gooseberry; Kiwifruit, Fuzzy; Kiwifruit, Hardy; Maypop; Schisandra Berry; Cultivars, varieties and/or hybrids of these

Stone Fruits – Crop Group 12: Apricot; Cherry, Sweet and Tart, Chickasaw Plum; Damson Plum; Fresh Prune; Japanese Plum; Nectarine; Peach; Plum; Plumcot; Prune

Tree Nuts – Crop Group 14: Almond; Beechnut; Brazil Nut; Butternut; Cashew; Chestnut; Chinquapin; Filbert (Hazelnut); Hickory Nut; Macadamia Nut; Pecan; Pistachio; Walnut

Tropical & Subtropical Fruits: Acerola; Atemoya; Avocado; Biriba; Black Sapote; Canistel; Cherimoya; Custard Apple; Feijoa; Guava, Ilama; Jaboticaba; Longan; Lychee; Mamey Sapote; Mango; Passionfruit; Papaya; Pulasan; Rambutan; Sapodilla; Sour-sop; Spanish Lime; Star Apple; Starfruit; Sugar Apple; Wax Jambu

¹Not for use in California.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

PESTICIDE STORAGE

Store in a cool dry place.

Keep pesticide in original container.

Keep container closed when not in use.

Do not put concentrate or dilute into food or drink containers.

Not for storage in or around the home.

For help with any spill, leak, fire or exposure involving this material, call day or night **800-892-0099**.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING

Nonrefillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration.

Esteem and Products That Work, From People Who Care are registered trademarks of Valent U.S.A. LLC.

Manufactured for
Valent U.S.A. LLC

P.O. Box 8025

Walnut Creek CA 94596-8025

Made in U.S.A.

Form 1387-0

EPA Reg. No. 59639-114

EPA Est. 2217-KS-2[Ⓢ], 61842-CA-1[Ⓢ]

Superscript is first letter of lot number.

Item No. 25065

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-6-VALENT (682-5368).



For state registration and/or supplemental labels, please call or visit us online.

Products That Work, From People Who Care[®] | valent.com | 800-6-VALENT (682-5368)

Always read and follow label instructions.

©2019 Valent U.S.A. LLC. All rights reserved. Printed in the U.S.A.



Safety Data Sheet - GHS

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: ESTEEM® Ant Bait
EPA REGISTRATION NUMBER: 59639-114
VC NUMBER(S): 1306 & 1505
SYNONYM(S): None
PRODUCT DESCRIPTION: Insect Growth Regulator

Esteem is a registered trademark of Valent U.S.A. LLC

MANUFACTURER/DISTRIBUTOR
 VALENT U.S.A. LLC
 P.O. Box 5075
 4600 Norris Canyon Road
 San Ramon, CA 94583

EMERGENCY TELEPHONE NUMBERS
 HEALTH EMERGENCY OR SPILL (24 hr):
 (800) 892-0099
 TRANSPORTATION (24 hr.): CHEMTREC
 (800) 424-9300 or (202) 483-7616

PRODUCT INFORMATION
 AGRICULTURAL PRODUCTS: (800) 682-5368

The current SDS is available through our website (www.valent.com), or by calling the product information numbers listed above.

2. HAZARDS IDENTIFICATION

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA-required classifications on the product label. Certain sections of this SDS are superseded by federal law under EPA FIFRA for a registered pesticide. Please see Section 15, REGULATORY INFORMATION for an explanation.

Classification - (per U.S. OSHA 29 CFR 1910.1200 (Hazcom 2012))

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Label elements

EMERGENCY OVERVIEW

No Signal Word is required for this material.

Precautionary statements

Prevention
 None

Response

Eyes None.
Skin None.
Inhalation None.
Ingestion None.
FIRE None.
Spill None.

Storage
 None

Disposal
 None

Hazards not otherwise classified (HNOC)

Other Information

For information on Transportation requirements, see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	TRADE SECRET
Pyriproxyfen	95737-68-1	0.5	
Others	No CAS#	99.45 - 99.55	-

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **(800) 892-0099** at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

EYE CONTACT:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN CONTACT:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

INHALATION:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration,

preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN:

None

5. FIRE FIGHTING MEASURES

Flash point °C
 Flash point °F Not applicable
 FLASH POINT METHOD: Not applicable
 EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical
 FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable
 FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable

NFPA RATING:

Health: 1
 Flammability: 2
 Reactivity: 0
 Special: None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING INSTRUCTIONS: Products of combustion from fires involving this material may be toxic. Smoke and fumes are extremely irritating to eyes, nose, throat and lungs. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire-fighting equipment before reuse. Read the entire document.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce: oxides of nitrogen,. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER: (800) 892-0099
CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300
OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION
 Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

UN/NA NUMBER: Not applicable **EMERGENCY RESPONSE GUIDEBOOK NO.:** Not applicable

FOR SPILLS ON LAND:

CONTAINMENT: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water.

CLEANUP: Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

FOR SPILLS IN WATER:

CONTAINMENT: This material is insoluble in water. This material will sink to the bottom. Stop or reduce contamination of any water. Isolate contaminated water.

CLEANUP: Remove contaminated water for treatment or disposal.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

HANDLING:

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.

STORAGE:

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight. Keep container closed when not in use. Not for use or storage in or around the home.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves.

EXPOSURE LIMITS

Chemical name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Pyriproxyfen	None	None	None
Others	None	None	Not known

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid	Odor	Mild Soybean oil odor
Appearance	Flakes (corn grits)	Odor threshold	No information available
Color	Golden		

<u>PROPERTIES</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.6	@ 25° C (1% w/v dispersion in water)
Melting point/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	Not applicable	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limits	Not applicable	

Lower flammability limit	Not applicable
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Liquid Density	No information available
Bulk density	18-22 lb/ft ³

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral Toxicity LD ₅₀ (rats)	>5000 mg/kg	EPA Tox Category	IV
Dermal Toxicity LD ₅₀ (rabbits)	>2000 mg/kg	EPA Tox Category	III
Inhalation Toxicity LC ₅₀ (rats)	Minimally toxic	EPA Tox Category	IV
Eye Irritation (rabbits)	Brief and/or minor irritation	EPA Tox Category	III
Skin Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical name	IARC Group 1 or 2	OSHA - Select Carcinogens	NTP Carcinogen List
Pyriproxyfen	Not listed	Not listed	Not listed
Others	Not Listed	Not listed	Not listed

TOXICITY OF PYRIPROXYFEN TECHNICAL

SUBCHRONIC: Subchronic oral toxicity studies conducted with Pyriproxyfen Technical in the rat, mouse and dog

indicate a low level of toxicity. Effects observed at high dose levels consisted primarily of decreased body weight; increased liver weights; histopathological changes in the liver and kidney; decreased red blood cell counts, hemoglobin and hematocrit; altered blood chemistry parameters; and, at 5000 and 10000 ppm in mice, a decrease in survival rates. The NOELs from these studies were 1000 ppm (149.4 mg/kg/day) in mice, 100 mg/kg/day in dogs and 400 ppm (23.5 mg/kg/day) in rats. In a 4 week inhalation study of Pyriproxyfen Technical in rats, decreased body weight and increased water consumption was observed at 1000 mg/m³. The NOEL in this study was 482 mg/m³. A 21-day dermal toxicity study in rats with Pyriproxyfen Technical did not produce any signs of dermal or systemic toxicity at 1000 mg/kg/day.

CHRONIC/CARCINOGENICITY: Pyriproxyfen Technical has been tested in chronic studies with dogs, rats and mice. Dogs exposed to dose levels of 300 mg/kg/day or higher for 52 weeks showed overt clinical signs of toxicity, elevated levels of blood enzymes and liver damage. The NOEL in this study was 100 mg/kg/day. In a 78 week study in mice, dietary levels of 3000 ppm or greater produced gross and histopathological changes in the kidney. The NOEL in this study was 600 ppm. In a 2-year study in rats, dietary levels of 3000 ppm or greater produced decreased body weights in female rats. The NOEL in the rat study was 600 ppm. No oncogenic response was produced in mice or rats.

DEVELOPMENTAL TOXICITY: Tests for developmental toxicity in rats and rabbits were conducted with Pyriproxyfen Technical. In the study conducted with rats, maternal toxicity (mortality, decreased body weight gain and food consumption and clinical signs of toxicity) was observed at doses of 300 mg/kg/day and greater. The maternal NOEL was 100 mg/kg/day. A transient increase in skeletal variations was observed in rat fetuses exposed to 300 mg/kg/day and greater. The NOEL for prenatal developmental toxicity was 100 mg/kg/day. An increased incidence of visceral and skeletal variations was observed postnatally at 1000 mg/kg/day. The NOEL for postnatal developmental toxicity was 300 mg/kg/day. In the study conducted with rabbits, maternal toxicity (clinical signs of toxicity including one death, decreased body weight gain and food consumption, and abortions or premature deliveries) was observed at oral doses of 300 mg/kg/day or higher. The maternal NOEL was 100 mg/kg/day. No developmental effects were observed in the rabbit fetuses. The NOEL for developmental toxicity in rabbits was 1000 mg/kg/day.

REPRODUCTION: A dietary rat reproduction study was conducted with Pyriproxyfen Technical. Systemic toxicity (reduced body weights, histopathological changes in the liver and kidney, and increased liver weight) was produced at 5000 ppm. The systemic NOEL was 1000 ppm. No effects on reproduction were produced even at 5000 ppm, the highest dose tested.

MUTAGENICITY: Pyriproxyfen Technical was negative in the following tests for mutagenicity: Ames Assay with and without S9, unscheduled DNA synthesis in HeLa S3 cells, *in vitro* gene mutation in V79 Chinese hamster cells, and *in vitro* chromosomal aberration in Chinese hamster ovary cells.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

The following information is based upon studies conducted on the Technical Grade Material which indicates Aquatic Toxicity Category 1. However as this Ant Bait product contains <0.55% of active ingredient, based upon calculation this product is not considered to be an Aquatic Hazardous material for transportation purposes.

AVIAN TOXICITY: Pyriproxyfen Technical is practically non-toxic to avian species. Test results include:

Oral LD₅₀ mallard duck: > 2000 mg/kg
Oral LD₅₀ bobwhite quail: > 2000 mg/kg
Dietary LC₅₀ mallard duck: > 5200 ppm
Dietary LC₅₀ bobwhite quail: > 5200 ppm
Reproduction bobwhite quail: NOEC = 600 ppm
Reproduction mallard duck: NOEC = 600 ppm

AQUATIC ORGANISM TOXICITY: Pyriproxyfen Technical is moderately to highly toxic to fish and moderately to very highly toxic to aquatic invertebrate species. Test results include:

Freshwater species:

LC₅₀ (96 hr) Bluegill Sunfish: > 270 µg/L

LC₅₀ (96 hr) Rainbow Trout: > 325 µg/L

LC₅₀ (21 day) Rainbow Trout: 90 µg/L

LC₅₀ (96 hr) Carp: 450 µg/L

LC₅₀ (96 hr) Killifish: 2660 µg/L

EC₅₀ (48 hr) Daphnia magna: 400 µg/L

MATC (21 day) Daphnia magna: 20 ppt

MATC (Early Life Cycle) Rainbow Trout: 5.4 µg/L

Estuarine species:

LC₅₀ (96 hr) Sheepshead Minnow: > 1.02 ppm

LC₅₀ (96 hr) Mysid Shrimp: 65 ppb

EC₅₀ (96 hr) Oyster Shell Deposition: 92 ppb

OTHER NON-TARGET ORGANISM TOXICITY:

Pyriproxyfen Technical is practically non-toxic to bees. The acute contact LC₅₀ in bees was greater than 100 µg/bee.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Non-refillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer bag for recycling if available. If recycling is not available, then dispose of empty bag in a sanitary landfill or by incinerations, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations.

14. TRANSPORTATION INFORMATION

DOT (ground) SHIPPING NAME: Not regulated for domestic ground transport by U.S. DOT

EMERGENCY RESPONSE

GUIDEBOOK NO.: Not applicable

ICAO/IATA SHIPPING NAME: Insecticide, not regulated

IMDG SHIPPING NAME: Insecticide, not regulated

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

Pesticide products in the U.S. are registered by the EPA under FIFRA and are subject to certain labeling requirements

under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

EPA FIFRA SIGNAL WORD: CAUTION

- *Harmful if swallowed, inhaled or absorbed through skin.*
- *Causes moderate eye irritation*
- *Avoid contact with eyes or clothing*
- *Avoid breathing dust*
- *Keep out of reach of children.*

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	Yes
Fire:	No
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE:	Updated the ecological information (Section 12). Updated transportation information.
SDS NO.:	0077
EPA REGISTRATION NUMBER:	59639-114
REVISION NUMBER:	2
REVISION DATE:	08/20/2020
SUPERCEDES DATE:	05/26/2015
RESPONSIBLE PERSON(S):	Valent U.S.A. LLC, Corporate EH&S, (925) 256-2803

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent U.S.A. LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent U.S.A. LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent U.S.A. LLC to confirm that you have the most current product label and SDS.

This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom").

The product label provides information specifically for product use in the ordinary course. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label.

2020 Valent U.S.A. LLC

Extinguish[®]

PLUS

- **Unique Two-Way Killing Action – Eliminates the Fire Ant Colony**
- **For Use on Residential and Commercial Property, Container or Nursery Stock, Sod Farms, Commercial Turf, Pasture and Rangeland**
- **Long Lasting Control Approved for Indoor and Outdoor Use**
- **1 Bag Treats up to 16.6 Acres**

ACTIVE INGREDIENT:

Hydramethylnon (CAS #67485-29-4).....	0.365%
S-Methoprene (CAS #65733-16-6)	0.250%
OTHER INGREDIENTS:	99.385%
TOTAL	100.000%

EPA Reg. No. 2724-496

EPA Est. No. 2724-TX-1

SPECIMEN LABEL



This mark is not an indication of safety.
Read and follow all label instructions.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See Additional Precautionary Statements

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Avoid contact with skin or clothing. Wash hands thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID

If on skin or clothing

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-347-8272 for emergency medical treatment information.

Personal Protective Equipment (PPE):

WPS USES:

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) - in general, agricultural-plant uses are covered - must wear: Long-sleeved shirt and long pants, Waterproof gloves, Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements:

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations: Users should: • Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. • Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE. Immediately wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters. Do not apply when weather conditions favor drift from target areas.

GENERAL INFORMATION

EXTINGUISH® PLUS is highly attractive to imported and native fire ants and other ants. Worker ants carry the bait into the mound as food for the colony. The ants will then begin feeding the bait to the rest of the colony. They eat it and feed it to the queen. **EXTINGUISH® PLUS** is a unique product containing a slow acting insecticide and an Insect Growth Regulator (IGR). This two-way action ensures complete control of fire ants. The IGR prevents rebound of the colony, while the insecticide insures rapid demise of the colony. **EXTINGUISH® PLUS** will start to kill ants after they feed on the bait. The colony will begin to decline in about a week, after the bait has been brought back to the mound. The mound is destroyed, when the queen dies. Further information regarding ants and ant control may be obtained from your Cooperative Agricultural Extension Service.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product by any method not specified on this label.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Keep people and pets out of the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons or pets out of treated area during pesticide applications.

USE RESTRICTIONS

FOR ALL OUTDOOR BROADCAST APPLICATIONS:

Maximum annual application per year – 4

Minimum retreatment interval: 30 days (90 day retreatment interval for application to Grass Forage (Pasture/Rangeland))

FOR ALL OUTDOOR APPLICATIONS

Avoid making applications if it is likely to rain within 24 hours of application, except when applying directly adjacent to a structure that is permanently protected from rainfall by a covering, overhang, awning, or other structure. Avoid applying granules to impervious surfaces, except as a crack-and-crevice treatment.

RESISTANCE MANAGEMENT

For resistance management, **EXTINGUISH® PLUS** contains a Group 20 insecticide. Any insect population may contain individuals naturally resistant to **EXTINGUISH® PLUS** and other Group 20 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields.

Appropriate resistance management strategies should be followed. To delay insecticide resistance, take the following steps:

- Rotate the use of **EXTINGUISH® PLUS** or other Group 20 insecticides within a growing season, or among growing seasons with different groups that control the same pests.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Wellmark International at 1-800-347-8272.

OUTDOOR USE

EXTINGUISH® PLUS controls imported and native fire ants and other ants, such as harvester ants, big-headed ants, and Argentine ants. **EXTINGUISH® PLUS** is for use on lawns, landscaped areas, golf courses, and other non-cropland areas such as airports, roadsides, cemeteries, commercial grounds,

parks, kennels, school grounds, picnic grounds, athletic fields, campgrounds, and other recreational areas, as well as on grounds surrounding poultry houses (excluding runs and ranges), or corrals and other animal holding areas. Avoid direct exposure of animals to **EXTINGUISH® PLUS**. Do not graze or feed treated lawn or sod clippings to livestock.

TREATMENT	RATE	COMMENTS
Individual Mounds: Imported and native fire ants Harvester ants Big-headed ants Argentine ants	2 to 5 level tablespoons	Distribute bait uniformly around the mound. Do not disturb the mound. Do not apply more than 2 lb/acre. Do not contaminate kitchen utensils by use or storage.
Broadcast Treatment: Imported and native fire ants Harvester ants	1.5 lb/acre [3 oz/5,000 sq ft]	Broadcast bait uniformly with ground (granular spreaders) or aerial equipment.
Broadcast Treatment: Big-headed ants Argentine ants	1 – 2 lb/acre [2–4 oz/5,000 sq ft]	Broadcast bait uniformly with ground (granular spreaders) or aerial equipment.

Apply when ants are active and foraging (when soil temperature is greater than 60° F). To determine if ants are foraging (feeding), place a potato chip near the mound and observe if ants begin feeding. Do not apply product if ants do not feed within a few minutes. Repeat observation at a later time to evaluate if ants are feeding. Apply product when feeding occurs on the potato chip. Repeat applications as needed, but minimum retreatment interval for broadcast applications is 30 days.

Apply product when area is dry from dew or irrigation. Do not irrigate for 24 hours after application. The bait will become unattractive to ants if it becomes wet. Ants that are actively foraging will begin picking up the bait soon after application.

Grass Forage (Pasture and Rangeland)

EXTINGUISH® PLUS may be applied to grass forage (pastures and rangeland) for the control of fire ants only in the following states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Use on grass forage (pastures and rangeland) in states other than those listed is unlawful. See Outdoor Use table for application directions. Do not exceed 8 pounds per acre per year or more than 4 times a year, with a minimum retreatment interval of 90 days. Do not bale and cut treated pastures and rangelands for 7 days following application. These cutting and baling hay restrictions

for pasture and rangeland do not apply when the treated pasture and rangeland is used solely to support **COMPANION ANIMALS** (e.g., horses, llamas, etc.). Companion animals grazed on treated areas cannot be used for food or feed. **EXTINGUISH® PLUS** may be used on uncultivated, agricultural, non-food crop and non-agricultural land.

Container or Nursery Stock: Use **EXTINGUISH® PLUS** in and around container or field grown ornamental nursery and non-bearing nursery stock. **EXTINGUISH® PLUS** may also be applied to the soil around non-bearing fruit or nut trees. Do not harvest food/feed from non-bearing fruit/nut tree nursery stocks within 1 year of application, if by chance, they bear fruit within that time. Apply to sod farms or other types of commercial turf. Do not graze or feed grass clippings to livestock.

Do not use on vegetable or other food crops, or commercial seed production.

REFILLABLE BAIT STATIONS

Use **EXTINGUISH® PLUS** in refillable bait stations. Place up to 1 ounce (2 tablespoons) of **EXTINGUISH® PLUS** per refillable bait station. Locate stations along the perimeter of a structure or fence line with 1 station every 15 to 30 linear feet. Locate stations near potential pest entry points of a structure or near locations where pests are a problem. Examples include: weep holes, foundation vents, stairs, decks, patios, picnic areas, utility areas, and other areas frequented by pests. Inspect stations frequently and replenish bait if soiled or wet. Affix a sticker to each station indicating the contents of the station following filling.

INDOOR USE

EXTINGUISH® PLUS controls imported and native fire ants, as well as other ants, such as: harvester, big-headed, and Argentine ants. Use **EXTINGUISH® PLUS** in homes, residential, commercial and other structures, and in the non-food/feed areas of institutional, warehousing, and commercial establishments, such as groceries and supermarkets, hotels and motels, hospitals and nursing homes, schools, laboratories, computer facilities, food storage areas, sewers, transportation equipment, pet shops or zoos, and in the inedible product areas of meat or poultry plants. Non-food/feed areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling). In the home, cover all food processing surfaces and utensils during treatment or wash thoroughly before use. Cover or remove exposed food.

Using a duster or similar equipment, apply bait **ONLY** into cracks and crevices, or other inaccessible areas such as, but not limited to, structural voids, unfinished attics or crawl spaces. Apply 0.25 - 0.5 ounce (2 teaspoons – 1 tablespoon) per crack, crevice, or other inaccessible areas where ants are entering the structure or where ants are nesting. Apply evenly in unfinished attics and crawl spaces at a rate of 0.25 ounce (2 teaspoons) per 100 square feet only if the space is secured or otherwise inaccessible to children or pets.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Storage:** Store in cool, dry, secure place and keep container tightly closed. Store container away from pets. This product is formulated with oil. Prolonged exposure to air may turn oil rancid and reduce the attractiveness of the bait. Use within 3 months after opening. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state or local authorities, by burning. If burned, stay out of smoke. **General:** Consult Federal, state or local disposal authorities for approved alternative procedures.

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

NOTICE: This product can expose you to chemicals including

For information, call 1-800-347-8272
www.extinguishfireants.com



NOTICE: This product can expose you to chemicals including hydramethylnon which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Name : Extinguish Plus
 Synonyms : 100518540, 24550, 24560, 24570; EPA Reg. No 2724-496, RF-2012 BAIT

1.2. Recommended use and restrictions on use

Recommended use : Insecticide. Insect growth regulator.
 Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Do not use or store near heat or open flame.

1.3. Supplier

Wellmark International
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.centralmosquitocontrol.com

1.4. Emergency telephone number

Emergency number : 1-800-248-7763
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, category 1B	May cause an allergic skin reaction
Reproductive toxicity Category 1B	May damage fertility or the unborn child
Combustible Dust	May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

May form combustible dust concentrations in air
 May cause an allergic skin reaction
 May damage fertility or the unborn child

Precautionary statements (GHS US) :

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF ON SKIN: Wash with plenty of water.
 If exposed or concerned: Get medical advice/attention.
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is toxic to fish. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

Extinguish Plus

Safety Data Sheet

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Hydramethylnon	(CAS-No.) 67485-29-4	0.365
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	0.25
Hydroquinone, tert-butyl-	(CAS-No.) 1948-33-0	0.05
Defatted Grits	(CAS-No.) 68525-86-0	85 – 95
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May damage fertility or the unborn child.
- Symptoms/effects after skin contact : May cause an allergic reaction in individuals with a sensitivity to hydroquinone, tert-butyl-

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Explosion hazard : Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Reactivity : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe dust. No flames, no sparks. Eliminate all sources of ignition. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Positive pressure self-contained breathing apparatus (SCBA).
- Emergency procedures : Contain spill and monitor for excessive dust accumulation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Turn off electric power to area. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Evacuate area. Stay upwind. Use grounded electrical/mechanical equipment. Wear appropriate personal protective equipment, avoid direct contact.

Extinguish Plus

Safety Data Sheet

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill. Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Finely divided: keep away from ignition sources/sparks. Avoid contact with skin, eyes and clothing. Avoid generating or breathing dust.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Avoid humid, wet or moist conditions. Store in a dry place. Store in a closed container. This product is formulated with oil. Prolonged exposure to air may turn oil rancid and reduce the attractiveness of the bait. Use within 3 months after opening. Store locked up.

Incompatible materials : Heat, sparks, open flame. Strong acids. Strong bases. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Applicators and other handlers must wear long sleeved shirt and long pants, socks and shoes

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Pale yellow granule

Color : Pale yellow

Odor : Mild, corn-like

Extinguish Plus

Safety Data Sheet

Odor threshold	: No data available
pH	: Not relevant
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.08 g/cc
Bulk density	: 19 lb/ft3
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Heat. Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Extinguish Plus	
LD50 oral rat	> 5010 mg/kg
LD50 dermal rabbit	> 5010 mg/kg

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified

Extinguish Plus

Safety Data Sheet

Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Exposure to dust may cause mild respiratory irritation.

Skin

Acute : May cause an allergic reaction in individuals with a sensitivity to hydroquinone, tert-butyl-

Eye

Acute : Exposure may cause mechanical eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Chronic : Repeated and prolonged exposure to Hydramethylnon may affect organs: testes.

Mutagenicity

: Hydramethylnon is not a mutagen. (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity

: Hydramethylnon is not classified as a carcinogen by IARC or NTP. (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

Reproductive Effects

: Hydramethylnon may cause adverse effects on reproduction. Hydramethylnon does not cause birth defects. (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

Hydramethylnon (67485-29-4)	
LC50 Acute fish 1	0.09 mg/l Exposure time: 96h Oncorhynchus mykiss
EC50 Acute crustacea 1	0.0544 mg/l Exposure time: 48h Mysid shrimp
NOEC Chronic crustacea 1	> 0.000088 mg/l Exposure time: 21d Daphnia magna
NOEC (acute)	0.01112 mg/l Exposure time: 72h Green algae
(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

Extinguish Plus	
Ecological Fate	This product is toxic to fish.

Extinguish Plus

Safety Data Sheet

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	UN3077	Packaging greater than 5 kg: Environmentally hazardous substance, solid, n.o.s (Hydramethylnon)	9	III	Marine pollutant
IATA	UN3077	Packaging greater than 5 kg: Environmentally hazardous substance, solid, n.o.s (Hydramethylnon)	9	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

Hydramethylnon (67485-29-4)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %
Hydroquinone, tert-butyl- (1948-33-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Defatted Grits (68525-86-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA Labelling	
EPA Registration Number	2724-496
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Avoid contact with skin or clothing. Wash hands thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
FIFRA First aid	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
FIFRA Environmental hazards	This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters. Do not apply when weather conditions favor drift from target areas.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date : 24 October 2014
Revision date : 18 January 2023
Supersedes : 08 April 2021

Indication of changes:

Revised Sec. 1: Revised material number(s). Revised Sec. 1: Emergency telephone number.

Extinguish Plus

Safety Data Sheet

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

EXTINGUISH[®]

Professional Fire Ant Bait

- ELIMINATES FIRE AND PAVEMENT ANT COLONIES
- 1 BAG TREATS 25 ACRES
- CAN BE APPLIED IN ORCHARDS, VINEYARDS, AND OTHER AREAS PLANTED FOR THE PRODUCTION OF FRUITS, NUTS, BERRIES OR ORNAMENTALS
- NO WITHDRAWAL PERIOD OR GRAZING RESTRICTIONS ON TREATED AREAS
- STOPS THE DEVELOPMENT OF NEW MOUNDS

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6) 0.5%

OTHER INGREDIENTS: 99.5%

Total 100.0%

EPA Reg No. 2724-475 EPA Eest. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional Precautionary Statements

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

FIRST AID

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
-------------------	---

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-347-8272 for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

WPS USES:

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) - in general, agricultural-plant uses are covered – must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE. Immediately wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of rinsate or equipment washwaters.

GENERAL INFORMATION

EXTINGUISH® PROFESSIONAL FIRE ANT BAIT (EXTINGUISH®) contains an insect growth regulator (IGR) with specific activity to fire and pavement ants. The IGR is contained in an attractive bait that foraging fire and pavement ant workers take back to the mound to feed to the queen. IGR's are different from conventional products which provide a direct kill to fire and pavement ants. IGR's work by affecting queen reproduction. The effects of the treatment may not be immediately evident. IGR's are slower in activity than conventional products. Though slower in action, control is complete without the concern of rebounding or movement of the colony to another location. Reduction in colony size can be seen beginning at 3 weeks with colony elimination within 8 to 10 weeks. When existing workers die, replacement workers are not produced resulting in starvation and elimination of the queen and colony.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

APPLICATION SITES

OUTDOOR USE

EXTINGUISH® may be applied to, but not limited to, the following areas:

- Cropland, for example:
 - Almond, pistachio and walnut orchards
 - Citrus groves
 - Grape vineyards
 - Forestry sites
 - Pasture and rangeland
- Residential turf & landscapes (around flowers, shrubs, and trees)
- Sod farms, sports fields, golf courses, parks
- Commercial nurseries including field grown and container stock
- School grounds, roadsides, airports, cemeteries, zoos
- Perimeter areas of buildings, homes, sheds, kennels, barns, poultry houses, swine operations, dairies, electrical & phone boxes, pump houses and other associated areas

METHODS OF APPLICATION

GENERAL

Application during heat of the day or when rain is expected within 6 hours of application will reduce the effectiveness of this product. Moisture reduces the attractiveness of the bait in wet areas. In areas of heavy infestation, repeat applications may be necessary 10 to 12 weeks following the initial application.

- 1. Individual Mound Treatments** - Treat all visible mounds with 3 to 5 tablespoons of **EXTINGUISH®** per mound. To treat the mounds, sprinkle the adjacent areas of the mound, applying evenly in a manner to encompass the mound to a perimeter of 4 feet. Do not disturb the mound during application. Worker ants will locate the bait quickly and begin taking it back to the mound.
- 2. Broadcast Applications** - Apply **EXTINGUISH®** to areas at the rate of 1 to 1.5 pounds of product per acre (3.5 tablespoons/1000 ft²) using suitable application equipment. Backpack, hand, or motorized mechanical equipment may be used. Aerial applications can be made using either rotary or fixed wing aircraft. No withdrawal or grazing restrictions are necessary on treated areas.

EXTINGUISH® may be used as a preventative application to reduce the buildup of fire and pavement ants into unwanted areas. Two to three broadcast applications per year are recommended to prevent the encroachment and subsequent development of new mounds into an area.

Repeat applications may be made as often as fire and pavement ants are observed.

3. Hopper Blend - Blend **EXTINGUISH®** with other fire and pavement ant bait products such as ProBait®*, Amdro Pro™, or other bait products labeled for fire and pavement ant control. When blending products, the more restrictive label will apply. Use a 50/50 mix to blend **EXTINGUISH®** and other bait. For broadcast applications, mix the required amount of bait so that the application is made using 0.75 lbs. **EXTINGUISH®** and 0.75 lbs. of other bait for a total of 1.5 lbs. of total bait per acre. For mound treatments, blend a 50/50 mix of **EXTINGUISH®** and other bait and apply at the rate of 3–5 tablespoons per mound.

RATES AND TIMING

Treatment	Rate	Comments
Broadcast Treatment	0.75 lbs. EXTINGUISH® plus 0.75 lbs. other bait product per acre	Mix bait products together thoroughly prior to application; distribute bait uniformly with ground equipment (granular spreaders) or aerial equipment.
Individual Mound Treatment	50/50 mix of EXTINGUISH® plus other bait. Apply blended product at 3-5 tablespoons per mound.	Mix thoroughly and apply product around and on the mound.

Observe all restrictions and precautions which appear on all product labels.

4. Refillable Bait Stations - **EXTINGUISH®** may be used in refillable bait stations. Place up to 1 oz of **EXTINGUISH®** per refillable bait station. Locate stations along the perimeter of a structure or fence line with 1 station every 15-30 linear feet. Locate stations near potential ant entry points of a structure or near locations where ants are a problem. Examples include: weep holes, foundation vents, stairs, decks, patios, picnic areas, utility areas, and other areas frequented by ants. Inspect stations frequently and replenish bait if soiled or wet. Affix a sticker to bait station indicating the contents.

INDOOR USE

Use **EXTINGUISH®** indoors in homes, residences (apartments, nursing homes), commercial buildings and warehouses, and any other structures where ants may enter. Also for use in non-food/feed areas of institutions, restaurants, commercial food processing areas, including poultry and livestock operations. Apply bait to cracks, crevices, and voids or to areas that are inaccessible such as attics, crawlspaces, and wall voids. Apply 0.25 – 0.50 oz per crack, crevice, or void. For use in attics or crawlspaces, use 0.25 oz per 100 square feet in those areas that are inaccessible to children or pets.

STORAGE AND DISPOSAL

STORAGE

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are not in accordance with directions.

* Except in California

For information call 1-800-347-8272.

www.extinguishfireants.com

www.zoecon.com

www.starbarproducts.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



EXTINGUISH, Precor and ProBait are registered trademarks and the Zoëcon logo is a trademark of Wellmark International.
Amdro Pro is a trademark of Central Garden & Pet Company.
©2003-2015 WELLMARK INTERNATIONAL

June, 2015
Schaumburg, IL



Extinguish Professional Fire Ant Bait

Safety Data Sheet

Issue date: 02/15/2016

Revision date: 05/26/2022

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Name : Extinguish Professional Fire Ant Bait
Synonyms : EPA Reg. No.: 2724-475, 37970

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
Restrictions on use : Avoid contact with eyes and clothing. Do not use or store near heat or open flame. Keep out of reach of children.

1.3. Supplier

Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.extinguishfireants.com and www.zoecon.com

1.4. Emergency telephone number

Emergency number : 1-800-347-8272
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Combustible Dust May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : May form combustible dust concentrations in air

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	0.5
Defatted Grits	(CAS-No.) 68525-86-0	85 – 90
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Extinguish Professional Fire Ant Bait

Safety Data Sheet

- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Explosion hazard : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. No flames, no sparks. Eliminate all sources of ignition. Contain spill and monitor for excessive dust accumulation. Turn off electric power to area.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
- Emergency procedures : Contain spill and monitor for excessive dust accumulation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Turn off electric power to area. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Evacuate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.
- Incompatible materials : Heat, sparks, open flame.

Extinguish Professional Fire Ant Bait

Safety Data Sheet

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear long-sleeved shirt, long pants, socks and shoes

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pale yellow granule
Color	: Pale yellow
Odor	: Earthy, corn-like
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Bulk density	: 19 lb(s)/ft ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable

Extinguish Professional Fire Ant Bait

Safety Data Sheet

Explosion limits : Not applicable
Explosive properties : Combustible Dust
Oxidizing properties : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use. Hazardous polymerization will not occur. May form combustible dust concentrations in the air.

10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Heat. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

(s)-Methoprene Technical (65733-16-6)	
LD50 oral rat	> 34000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	5.19 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Exposure to dust may cause respiratory irritation.

Skin

Acute : Exposure to dust may cause mechanical irritation.

Eye

Acute : Exposure to dust may cause mechanical irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Extinguish Professional Fire Ant Bait

Safety Data Sheet

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.
Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.
Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Defatted Grits (68525-86-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA Labelling	
EPA Registration Number	2724-475
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Caution

Extinguish Professional Fire Ant Bait

Safety Data Sheet

FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.
FIFRA First aid	If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
FIFRA Environmental hazards	Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. [Do not pour product or rinse water down any drain.]

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date : 15 February 2016
Revision date : 26 May 2022

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

PRECAUTIONARY STATEMENTS

HAZARD TO HUMAN AND DOMESTIC ANIMALS

Harmful if inhaled, swallowed, or absorbed through skin. Causes moderate eye irritation. Avoid breathing dust. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove and wash contaminated clothing before reuse. Obtain medical attention if irritation persists. Avoid contamination of food or feedstuffs.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Water proof gloves
- Shoes plus socks

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

In addition, all applicators and handlers must wear a NIOSH-approved particulate respirator with any N, R, or P filter (NIOSH approval number prefix TC-84A); or a NIOSH-approved powered air purifying respirator with an HE filter (NIOSH approval number prefix TC-21C).

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash-waters. Application of this product is prohibited directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application. This product is highly toxic, and may be pathogenic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Keep this product in its tightly closed original container when not in use. Store in a cool, dry, well-ventilated (preferably locked) area that is inaccessible to children and animals. Store this product in a place away from strong bases, strong acids, sources of ignition and direct sunlight.

PESTICIDE DISPOSAL: For waste materials following 4-week treatment interval (e.g., disposal of used netting with actives/used water with attractants at time of IN2MIX® refill replacement): Dispose of used netting in a sanitary landfill, or by other procedures approved by state and local authorities. Dispose of used water with attractants by pouring out of IN2CARE® trap onto the ground, and not near a water source. Prevent entry of used water into sewers, gutters, or drains, or any area where drainage to storm sewers, water bodies, or aquatic habitat can occur. Notify authorities if liquid enters sewers or public waters.

CONTAINER HANDLING: Shake unopened IN2MIX® packet to assure that actives stick to netting. Open packet and place one IN2MIX® pesticide-treated netting on the floater. Completely empty remaining contents (powder and odor tablets) into IN2CARE® trap by shaking and tapping sides and bottom to loosen clinging particles. When completely empty, dispose of empty packets in trash or in a sanitary landfill, or by other procedures approved by state and local authorities.



THIS PRODUCT IS NOT FOR RETAIL SALE

For use to control *Aedes* species of Mosquitoes that may transmit
Zika, Chikungunya, and Dengue Fever

Active Ingredients:	% w/w
Pyriproxyfen (CAS No. 95737-68-1)	74.03%
<i>Beauveria bassiana</i> strain GHA* (CAS No. 63428-82-0)	10.00%
Other Ingredients:	15.97%
Total:	100.00%

* Contains not less than 4.5 X 10⁹ viable spores/gm.

KEEP OUT OF REACH OF CHILDREN

CAUTION

READ ALL LABEL DIRECTIONS COMPLETELY BEFORE USE

FIRST AID

If Inhaled	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If Swallowed	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may call the National Pesticide Information Center at 1-800-858-7378, from 8:00 a.m. to 12:00 p.m. Pacific Time, Monday through Friday. After 12:00 p.m. Pacific Time on weekdays, and during the weekend, call the poison control center at 1-800-222-1222.

NOTICE: Buyer and user assume all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

BUYER GUARANTEE LIMITED TO LABEL CLAIMS

Manufactured by:

In2Care BV, Marijkeweg 22,
6709 PG Wageningen, NL
EPA Reg. No.: 91720-1, EPA Est. No.: 7319-NLD-1



DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

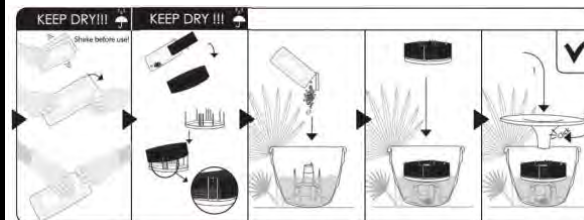
READ ALL LABEL DIRECTIONS COMPLETELY BEFORE USE

FOR OUTDOOR USE ONLY

ASSEMBLY

Assemble the plastic IN2CARE® trap as directed in the enclosed user manual. Fill the base with 4 to 5 quarts (3.5–4.5 liters) of clean tap water. Place one IN2MIX® pesticide-treated netting on the floater as indicated below. Empty the remaining contents (powder and odor tablets) of the packet into the water.

Use one IN2MIX® packet per trap every 4 weeks when adult mosquitoes are active. DO NOT allow people or pets to contact the pesticide.



PLACEMENT

Place the activated IN2CARE® trap outside on the ground in a level, shaded location. Avoid locations with continuous direct sunlight. For optimal coverage, place at least 1 trap every 4,300 sq. feet (400 sq. meters), or at least 10 traps per acre. Do not exceed 15 traps per acre.

TO REFILL

Re-visit each IN2CARE® trap every 4 weeks. Remove the lid and take out the floater. Dispose of the waste materials (netting and water) as indicated in the Storage and Disposal section of this label. Refill with 4 to 5 quarts (3.5–4.5 liters) of clean tap water. Take a new IN2MIX® refill packet and repeat the assembly steps as described above.

HOW IT WORKS

IN2MIX® slowly kills adult *Aedes* spp. mosquitoes. Therefore, dead adult mosquitoes may not be found in the trap.

The *Aedes* spp. larvae that emerge from eggs laid inside the trap are killed by the growth regulator prior to transforming into adults. This means that it is normal to see small living larvae in the trap that will eventually die.

After laying eggs, the adult female should be contaminated with a growth regulator and slow acting adulticide so she can carry the growth regulator to other nearby breeding sites and should die within a few days following exposure to the adulticide.

For best results, remove/empty artificial water containers (e.g., flower pots, plastic cups, car tires, etc.) that serve as other breeding sites, and use a registered mosquito larvicide to treat breeding sites that cannot be removed or emptied.

Aedes spp. mosquitoes can have very specific breeding preferences within certain locations. Check for the presence of live and dead mosquito larvae inside the traps every 4 weeks. When a trap continuously has zero or much fewer larvae when compared to other nearby traps, the unattractive trap should be relocated to another nearby shaded location.

Net Weight:

50g (1.76 ounces)
100 refills x 0.5g each
(0.018 ounces)

Batch N°:

I2CT.1.US.10001

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : In2mix

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

In2Care B.V.
Marijkeweg 22
6709 PG Wageningen - Netherlands
T +31 317 769018
info@in2care.org - www.in2care.org

1.4. Emergency telephone number

Emergency number : Hot line number have the produkt container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (incl. health concerns, medical emergencies or pesticide incidents), you may call the National Pesticide Information Center at 1-800-858-7378, from 8:00 a.m. to 12:00 p.m. Pacific time Mon.-Fri. After 12:00 p.m. Pacific Time on weekdays, and during the weekend, call the pionson center at 1-800-222-1222

Country	Organisation/Company	Address	Emergency number	Comment
United States of America	National Pesticide Information Center	Oregon State University 310 Weniger Hall Corvallis, OR 97331-6502	1.800.858.7378	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Respiratory sensitisation, Category 1 H334
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

GHS09

Signal word (CLP) : Warning
Hazardous ingredients : Beauveria bassiana
Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear cold insulating gloves/face shield/eye protection.
P284 - Wear respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.

2.3. Other hazards

No additional information available

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine	(CAS-No.) 95737-68-1 (EC-No.) 429-800-1 (EC Index-No.) 613-303-00-3	74.03	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Silicon Dioxide	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4 (REACH-no) 01-2119379499-16	15.97	Not classified
Beauveria bassiana	(CAS-No.) 63428-82-0	10	Resp. Sens. 1, H334 Skin Sens. 1, H317

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
-----------------------------------	---

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
----------------------	-----------------------------------

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
-------------------------	--

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Store in dry, cool, well-ventilated area. Keep only in the original container in a cool, well ventilated place away from :
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Colour : Off-white.
- Odour : characteristic.
- Odour threshold : No data available
- pH : 6.46
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Non flammable.
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Density : 0.457 g/cm³
- Solubility : No data available
- Log Pow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

9.2. Other information

No additional information available

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Under the test conditions, the test substance In2Mix was classified as Category 5/ Unclassified according to the GHS(Globally Harmonized Classification System for Chemical Substance and Mixtures) and the median lethal oral dose (LD50) for rats was considered higher than 2000 mg/kg bw. The estimated LD50(cut off) was 5000 mg/kg bw Acute Oral toxicity RATS OECD 423
Acute toxicity (dermal)	: Under the test conditions, the dermal median lethal dose (LD50) for the test In2Mix was found to be higher than 2000mg/kg bw. Acute dermal toxicity RATS OECD 402
Acute toxicity (inhalation)	: The acute inhalation LC50 for the substance In2Mix was considered to be greater than 1.514 mg/l Acute inhalation toxicity RATS OECD 403

2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine (95737-68-1)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Skin corrosion/irritation	: According to the results, the substance In2Mix was considered not sensitizing to guinea pigs skin. SKIN sensitization GUINEA PIG OECD 406. Under the test conditions, the test substance In2Mix was not classified into the GHS categories and class IV by ANVISA. Acute dermal irritation/corrosion Rabbits OECD 404 pH: 6.46
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified pH: 6.46
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Additional information	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Under the test conditions, the test substance In2Mix was classified as Category 5/ Unclassified according to the GHS(Globally Harmonized Classification System for Chemical Substance and Mixtures) and the median lethal oral dose (LD50) for rats was considered higher than 2000 mg/kg bw. The estimated LD50(cut off) was 5000 mg/kg bw Acute Oral toxicity RATS OECD 423. The acute inhalation LC50 for the substance In2Mix was considered to be greater than 1.514 mg/l Acute inhalation toxicity RATS OECD 403 . Under the test conditions, the dermal median lethal dose (LD50) for the test In2Mix was found to be higher than 2000mg/kg bw. Acute dermal toxicity RATS OECD 402.

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Very toxic to aquatic life with long lasting effects.

2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine (95737-68-1)

LC50 fish 1	96h: 0.45 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	48h: 0.4 mg/l

12.2. Persistence and degradability

In2mix

Persistence and degradability	May cause long-term adverse effects in the environment.
-------------------------------	---

12.3. Bioaccumulative potential

In2mix

Bioaccumulative potential	Not established.
---------------------------	------------------

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197
14.1. UN number		
3077	3077	3077
14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1))	Environmentally hazardous substance, solid, n.o.s. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1))
Transport document description		
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1)), 9, III, (E)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1)), 9, III	UN 3077 Environmentally hazardous substance, solid, n.o.s. (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine(95737-68-1)), 9, III
14.3. Transport hazard class(es)		
9	9	9

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

		
---	---	---

14.4. Packing group

III

III

III

14.5. Environmental hazards

Dangerous for the environment : Yes

Dangerous for the environment : Yes
Marine pollutant : Yes


Dangerous for the environment : Yes

Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M7
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P002, IBC08, LP02, R001
Special packing provisions (ADR)	: PP12, B3
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T1, BK1, BK2
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV, LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V13
Special provisions for carriage - Bulk (ADR)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	: 
Tunnel restriction code (ADR)	: E
EAC code	: 2Z

Transport by sea

Stowage and handling (IMDG) : SW23

Air transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

91720-1 EPA registration number

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

In2mix

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable

MasterLine®

By Univar

KONTROL MOSQUITO LARVICIDE

Kills larvae and pupa stages of mosquitoes.

For use on:
Sewage and drainage ditches
Catch basins
Salt marshes, swamps and stagnant water pools

ACTIVE INGREDIENT:	
Mineral Oil*	98%
OTHER INGREDIENTS:	2%
TOTAL	100%

*Contains petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See other panels for additional precautionary statements and First Aid.

EPA Registration No. 73748-10

Manufactured By:
Univar Environmental Sciences
11305 Four Points Drive, Building 1, Suite 210
Austin, Texas 78726

FIRST AID

If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not give any liquid to the person.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none">• Move the person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You also may contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

Note to Physician: This product contains petroleum distillates and may pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin or swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, neoprene rubber, or viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart. Mixers, loaders, applicators, flaggers, and other handlers must wear:

- long-sleeve shirt and long pants,
- shoes plus socks, and
- chemical-resistant gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
- Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact adults, children or pets either directly or through drift. Only protected handlers may be in the area during application.

Do not apply this product through any type of irrigation system (i.e., via chemigation). Do not allow adults, children or pets to enter until sprays have dried.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (ground, aerial, or airblast) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product. The restrictions pertaining to wind speed, temperature inversions, and droplet size apply to all of the methods of application permitted for this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph at the application site.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions.

Droplet Size: Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

Ground Spray Applications: Apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

Airblast Applications: Turn off outward pointing nozzles at row ends and when spraying outer row. To minimize spray loss over the top in citrus applications, spray must be directed into the canopy.

Aerial Applications: Do not release spray at a height greater than 10 feet above the ground, top of crop, or above the orchard canopy.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade's diameter.

Swath Adjustment: When applications are made cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downward edge of the application area by adjusting the path of the aircraft upwind. Leave at least one swath unsprayed at the downwind edge of the treated field.

Kontrol Mosquito Larvicide does not depend on life-cycle time for effectiveness. As it kills by suffocation, mosquitoes do not develop resistance. When applied as directed, this product does not leave a dark oily film.

Application Directions

Kontrol Mosquito Larvicide is designed for surface application to intermittently flooded areas, temporary rain pools, sloughs and log ponds. Mixture with water (milky appearance) should be avoided or minimized. Do not apply this product under high pressure or at high velocity. Adjust spray nozzle for partial cone pattern. Equipment used to apply other materials should be cleaned by rinsing first with diesel fuel or fuel oil, then with larvicide.

GROUND APPLICATION: Apply at rates of one to five gallons per acre (3 to 15 fl. oz. per 1,000 sq. ft.) depending on water surface conditions and vegetative density.

Use 1 to 2 1/2 gallons per acre (3 to 7 1/2 fl. oz. per 1,000 sq. ft.) if trees are in green tip stage and vegetative cover is light and water is essentially clean.

To penetrate heavier or denser vegetative cover, or if water is substantially polluted, use 2 1/2 to 5 gallons per acre (7 1/2 to 15 fl. oz. per 1,000 sq. ft.).

An average rate of 2 1/2 to 3 gallons per acre (approximately 1 quart to 5,000 sq. ft. — 50' x 100' area, 7 1/2 to 9 fl. oz. per 1,000 sq. ft., or 2 to 4 teaspoons per 100 sq. ft. = 10' x 10' area) of water surface covers most conditions.

AERIAL APPLICATION: Apply at rates of two to four gallons per acre for salt marshes and swamps. Adjust for vegetation or surface conditions. Average rate of 3 gallons per acre (36 gallons per 100 ft. swath mile) covers most conditions.

Apply to leave a thin film over surface of breeding areas. Include treatment of drainage ditches, catch basins, stagnant pools, open sewage basins to improve overall control. Since high pressures or high velocities are not needed, lighter equipment can be effectively used. Since mosquitoes can hatch in 5-7 days of warm weather, any stagnant water expected to be exposed for that period or longer should be treated.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store and transport in an upright position. Store in original container in a cool, dry area.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable Containers less than or equal to 5 gallons- Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Containers greater than 5 gallons- Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Refillable container (275 gallons): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Return container to point of purchase for reuse with seal intact and in salable condition. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times. Then, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY

Seller warrants that this product complies with the specifications expressed in this label. To the extent consistent with applicable law, Seller makes no other warranties, and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for the intended purpose. To the extent consistent with applicable law, Seller's liability or default, breach or failure under this label shall be limited to the amount of the purchase price. To the extent consistent with applicable law, Seller shall have no liability for consequential damages.

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name: Kontrol Mosquito Larvicide
Description: Mosquito Larvicide
EPA Reg. No: 73748-10

Company Name and Address:
Univar Environmental Sciences
11305 Four points Drive
Bldg. 1, Suite 210
Austin, Texas 78726

Emergency Response Telephone Numbers
For Spills Call Chemtrec: 1-(800)-424-9300
For Medical Emergencies Call: 1-(866)-674-4334
For Other Emergencies Call: 1-(952)-653-3523

SECTION 2: HAZARD IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200



WARNING
Harmful if absorbed through skin or swallowed.
Causes moderate eye irritation.
May cause allergic skin reactions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS:</u>		<u>(% w/w)</u>
Mineral Oil	CAS No. 64742-30-9	98.0
Other Ingredients		2.0

SECTION 4: FIRST AID MEASURES

FIRST AID

- If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- If swallowed:** Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

SAFETY DATA SHEET

SECTION 4: FIRST AID MEASURES (CONT'D)

If inhaled: Move the person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You also may contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

Note to Physician: This product contains petroleum distillates and may pose an aspiration pneumonia hazard.

SECTION 5: FIRE-FIGHTING MEASURES

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating
Health	1
Flammability	0
Reactivity	0

FLASH POINT (Method used):	NA
FLAMMABLE LIMITS:	N/A
EXTINGUISHING MEDIA:	CO2
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIRE FIGHTING PROCEDURES:	NA

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILLS OR LEAKS: Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding.

SECTION 7: HANDLING AND STORAGE

Keep out of reach of children. Do not contaminate water, food or feed by storage or disposal.

HANDLING: Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling this product.

STORAGE: Store and transport in an upright position. Store in original container in a cool, dry area.

SAFETY DATA SHEET

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINE(S):

MATERIAL:

Active Ingredients: Mineral Oil

OSHA PEL

Not established

ACGIH TLV

Not established

Inert Ingredient:

Not established

Not established

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Mixers, loaders, applicators, flaggers, and other handlers must wear: long-sleeve shirt and long pants, shoes plus socks, and chemical-resistant gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	199°C (390°F) by ASTM D 2287
VAPOR PRESSURE:	Less than 0.01 mm HG at 20°C
VAPOR DENSITY (Air=1):	Greater than 5
SOLUBILITY IN WATER:	Negligible; less than 0.1%
SPECIFIC GRAVITY (Hp=1):	(15.6°C/15.6°C) 0.84
APPEARANCE & ODOR:	Very light yellow liquid - petroleum odor

SAFETY DATA SHEET

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable
INCOMPATIBILITY (Materials to Avoid):	None
CONDITIONS TO AVOID:	Avoid heat, sparks and open flame..
HAZARDOUS POLYMERIZATIONS:	Will not occur.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:	None
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

PRE-EXISTING MEDICAL CONDITIONS: The following diseases or disorders may be aggravated by exposure to this product: Dermatitis, respiratory system disorders, lung disorders (asthma-like conditions).

INHALATION: Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat, lungs and respiratory tract.

LC ₅₀ (mg/l):	no data
LC ₅₀ (mg/m ³):	no data
LC ₅₀ (ppm):	no data

SKIN Practically non-toxic if absorbed through the skin. Substance may cause slight skin irritation. Contact with heated product may cause thermal burns.

Draize Skin Score:	no data out of 8.0
LD ₅₀ (mg/kg):	no data

EYES: Contact with product at elevated temperatures can result in thermal burns.

INGESTION: Harmful or fatal if swallowed. While ingesting or vomiting, may enter lungs and produce damage.

LD ₅₀ (g/kg):	>15
--------------------------	-----

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

SAFETY DATA SHEET

SECTION 13: DISPOSAL CONSIDERATIONS

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable Containers less than or equal to 5 gallons- Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Containers greater than 5 gallons- Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Refillable container (275 gallons): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Return container to point of purchase for reuse with seal intact and in salable condition. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times. Then, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



SAFETY DATA SHEET

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT, IATA, and IMO: Not Regulated

SECTION 15: REGULATORY INFORMATION

FIFRA INFORMATION:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for the workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

CAUTION: Harmful if absorbed through skin or swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Mineral Oil CAS	64742-30-9	98.0%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA “Hazard Categories” promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute:	Yes
Chronic:	No
Fire:	No
Reactivity:	No
Sudden Release of Pressure:	No

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD: This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.



SAFETY DATA SHEET

SECTION 15: REGULATORY INFORMATION (CONT'D)

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Category:

Chemical Name	CAS Number	RQ	% in Product
Mineral Oil CAS	64742-30-9	not listed	98.0%
Inert Ingredients		not listed	2.0%

SECTION 16: OTHER INFORMATION

SDS Date: May 5, 2015

This document is prepared pursuant to the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012. In addition, other substances not "Hazardous" per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations. See SDS for health and safety information.

© 2015. Univar USA Inc. All rights reserved. UNIVAR, the hexagon, and MasterLine are the property of Univar Inc., Univar USA Inc. or affiliated companies.



M-PEDE[®]
INSECTICIDE/MITICIDE/FUNGICIDE

FOR ORGANIC PRODUCTION

ACTIVE INGREDIENTS:

Potassium salts of fatty acids 49.0%

OTHER INGREDIENTS 51.0%

TOTAL 100.0%

1 gallon of M-Pede[®] weighs 8.50 lb at 68°F and contains 3.8 lb active ingredient per gallon (456 g ai/L)

**KEEP OUT OF REACH OF CHILDREN
WARNING – AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminate clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-478-0798 for emergency medical treatment information.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING**

Causes substantial but temporary eye injury and skin irritation.

Do not get in eyes, on skin or clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate and viton. For more information, follow the instructions for category C on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the diluted product through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as butyl rubber, nitrile rubber, neoprene rubber or PVC
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

NET CONTENTS _____ GALLONS

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This product may be hazardous to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and involves contact with anything that has been treated such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

USE INFORMATION

M-Pede insecticide/fungicide is a contact insecticide, miticide and fungicide for control of soft-bodied insects, mites and powdery mildew. The formulation is based on potassium salts of naturally derived fatty acids. This product may be used to control targeted pests on crops which include vegetables, grapes and other small fruits, tree fruits, tree nuts, cotton, tobacco, shrubs, shade and ornamental trees, turf, foliage and flowering plants growing outdoors, in greenhouses and in interiorscapes. This product can be applied up to harvest.

Pests Controlled

This product may be used as a foliar spray to control or suppress soft bodied pests which include: adelgids, aphids, caterpillars, earwigs, lace bugs, leafhoppers, leafminers, mealybugs, mole crickets, plant bugs, psyllids, sawfly larvae, scales, spider mites, tent caterpillars, thrips, whiteflies, gypsy moth, and chinch bugs. M-Pede is most effective on mites, aphids and whiteflies. Effects on other pests are limited to early growth stages and eggs. This product provides curative control of powdery mildew.

Mixing and Application**Rates**

• **Stand Alone Rate:** M-Pede rates as low as 0.25% v/v or as high as 4% v/v may be used. The 2% v/v rate is the most frequently used stand-alone rate.

- Refer to individual sections of this label for specific use rates for control of pests on specific crops.
- Rates are provided as a % volume/volume (v/v) solution. A 2% solution is prepared by adding 2 gallons of M-Pede to 98 gallons of spray water.
- The activity of this product is directly related to the solution concentration and to contact with the pest, not the amount of product applied per acre.

• **Tank Mix Rate:** To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with a specified product.

Rate Table

Total Mix Volume	% v/v Solution	Amount of M-Pede		Tablespoons
		English	Metric	
1 gallon (3.785 liters)	0.25%	0.315 fl oz	9.5 ml	0.63
	0.5%	0.63 fl oz	19 ml	1.25
	1.0%	1.25 fl oz	38 ml	2.4
	1.5%	2.0 fl oz	57 ml	3.75
	2.0%	2.5 fl oz	76 ml	5
100 gallon (378.5 liters)	4.0%	5 fl oz	152 ml	10
	0.25%	0.25 gal	0.95 liters	-
	0.5%	0.5 gal	1.9 liters	-
	1.0%	1 gal	3.8 liters	-
	1.5%	1.5 gallons	5.7 liters	-
	2.0%	2 gallons	7.6 liters	-
	4.0%	4 gallons	15.1 liters	-

Mixing

- Always determine the compatibility of water, pesticides and other tank additives with this product prior to addition to the spray tank. Determine compatibility by conducting a jar test using proportional quantities of each material.
 - Use freshly mixed spray made with soft water. If water has high mineral content (hardness >300 ppm or 17.5 grains/gallon), check for compatibility as described above. If needed, add an approved compatibility agent to the tank prior to the addition of this product. Do not lower the pH of the final spray mixture below 8.0. **See notes to User: Understanding Plant Sensitivity.**
 - A defoaming agent may be needed for use in sprayers equipped with an agitator.
 - This product is compatible with other labeled pesticides, including Success® insecticide, Entrust® insecticide, and Bt based insecticides. However, when tank mixing M-Pede with other products, a compatibility test (jar test) using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. When tank mixing, read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.
 - Unless otherwise noted, do not tank mix this product with adjuvants such as penetrators, spreader stickers or activators, gibberellic acid, calcium nitrate, or diatomaceous earth, foliar nutrients, alkaline based chelating agents (such as EDTA), Aliette fungicide, chlorothalonil and pesticides containing sulfur or metallic ions (such as manganese, magnesium, iron, zinc, etc.) as they may be physically incompatible and/or phytotoxic.
 - Do not mix M-Pede with Carzol® insecticide as they are not physically compatible.
 - Do not mix M-Pede with sulfur. Do not use within 3 days of a sulfur application.
-
- When using this product in a tank mix, read and follow all product labels. The order of mixing is:
 - Compatibility agent (if needed)
 - Wettable and soluble powders
 - Flowable liquids
 - Emulsifiable oils and concentrates
 - M-Pede

Application of spray mixtures should conform to use precautions and directions for all products included in the tank mix. Combinations should be kept agitated and sprayed promptly after mixing.

Timing of Application

- Initiate applications as soon as pest is observed, or as needed to avoid economic injury. Repeat applications at one-week intervals, or as needed, to control infesting or increasing pest populations.
- Do not make repeat applications at less than 7-day intervals, or make more than 3 sequential applications at 7- to 14-day intervals unless your experience has shown the use pattern to be non-injurious to the type and the development stage of plant(s) to be treated under local growing conditions.

Application Guidelines

- This product may be applied with most types of ground or aerial spray equipment. Do not use with pulse or thermal fogger applicators. Do not apply through any type of irrigation system.
- This product must come into contact with the targeted soft-bodied pests or powdery mildew to be effective. Complete coverage of pests is essential for maximum control. Direct sprays to contact the pests. In general, adequate coverage requires a minimum of 50 gallons of total spray volume per acre. Higher volumes may be required on larger perennial crops.
- Apply M-Pede solutions to wet (minimize run-off) to decrease the potential for injury on foliage, fruit and flowers of sensitive plants.
- Apply promptly after mixing with other pesticides to avoid or reduce alkaline hydrolysis of certain pesticides.
- Avoid applications when wind conditions impair thorough coverage.
- Avoid applications on new transplants and unrooted cuttings.

Notes to User: Understanding Plant Sensitivity

Sensitivity of plants to this product can be influenced by several factors which include: pest and disease pressure, cultivar, plant vigor, environmental conditions (temperature, relative humidity, moisture availability, light intensity, etc.), spray concentration, companion products, spray additives, pH of spray mixtures, delivery volume as well as the timing, number and frequency of applications.

- Potential for plant injury increases when this product is used under the following conditions:
 - Plants are stressed, such as under hot (>90°F), humid and/or drought conditions.
 - More than 3 sequential applications are made at 7-day intervals.
 - The pH of the final spray mixture is lowered below 8.0.
 - High volume applications cause the spray to collect on the bottom of fruit such as apple, pear, nectarine, orange and grape.
 - Tender new foliage is present on narrow leaf evergreen trees and shrubs.
 - When existing insect, mite or disease pressure has already stressed plant foliage or damaged fruit (for example, mite burn on leaves).
- Application of this product may alter the appearance of the glaucous bloom on spruces and the waxy bloom on grapes.
- Evaluate the effect of this product alone or in combination with desired companion product(s) on a few test plants prior to full scale applications when sensitivity of plant species or cultivars under local use conditions is unknown.
- Do not apply to very sensitive plants such as: horse chestnut, Japanese maple, mountain ash, Cherimoya, bleeding heart or sweetpeas.
- The following plants may be sensitive to this product: bald cypress, begonia, chrysanthemum, Crown of Thorns and other Euphorbia, cucumber, delicate ferns, narrow leaf evergreens (especially when stressed or when tender new growth is present), Dieffenbachia, fuschia, gardenia, impatiens, jade plant, lantana, ornamental ivy, palms, poinsettia, redbud, river birch, schefflera, Zebra plant and some succulents. Test first on a few plants prior to broad scale applications when sensitivity under local use conditions is unknown.
- Flowers of plants including African violet, ageratum, azalea, begonia, camellia, chrysanthemum, dahlia, geranium, gloxinia, impatiens, lily, marigold, orchid, pansy, petunia, poinsettia bracts, rose, salvia, snapdragon, vinca and zinnia may be injured when sprayed with this product. Safety to blooms should be determined for each individual cultivar of plant to be treated by conducting a small test under local use conditions.

Insecticidal / Miticidal and Fungicidal Uses

This product may be used as a foliar spray to control or suppress soft bodied pests which include: adelgid, aphid, earwig, lace bug, leafhopper, mealybug, mole cricket, plant bug, psyllid, sawfly larva, scale, spider mite, tent caterpillar, thrips, whitefly, gypsy moth, and chinch bug.

Preharvest Interval

M-Pede has a 0-Day Preharvest interval for ALL crops contained on this label.

Vegetables, Herbs And Spices (Greenhouse and Outdoor)	
<p>Vegetables: Artichoke*, Asparagus, Brassica (cole), (such as: bok choy, broccoli, broccoli raab, Brussels sprout, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, napa cabbage and Swiss chard), Bulb (such as: green onion, leeks, garlic and onion), Cucurbit (such as: cucumber, melon, pumpkin and summer squash), Fruiting (such as: eggplant, pepper and tomato), Leafy (such as: celery, endive, escarole, lettuce and spinach), Legume (such as: bean, pea and soybean), Root and tuber (such as: beet, carrot, horseradish, potato, radish, rutabaga, shallot, sugarbeet and yam), Herbs and spices: (such as: basil, chive, dill, marjoram, parsley and sage). Watercress*</p> <p>* Not approved for use in California</p>	
<p>Use Recommendations:</p> <p>Stand Alone Rate: Apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the Mixing and Application section of this label for general rate, timing and application information except as noted below.</p>	
Pest	Recommendations
Leafminers and Green peach aphids	Apply this product only in tank mix combination with a labeled companion insecticide.
Other aphids	To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a specified rate of another labeled product. Consult your local extension specialist, certified crop advisor, and/or manufacturer representative for specific product recommendations.
Whiteflies	Apply a 1-2% v/v solution of this product for stand-alone use. To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a specified rate of another labeled product. Consult your local extension specialist, certified crop advisor, and/or manufacturer representative for specific product recommendations.
Thrips, Plant bugs, Spider mites, Broad mites, Russet mites and Leafhoppers	See Mixing and Application section of this label for information on rates, mixing and application.
Powdery mildew	<p>Cucurbits, Fruiting Vegetables, Herbs and Spices, Leafy Vegetables, Legumes, Root and Tuber Vegetables and Greenhouse Cucumber:</p> <p>For stand-alone use, apply a 1.5-2% v/v solution of this product when the first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7-10 days after each application when this product is used alone.</p> <p>For tank mix use, apply a 1-2% v/v solution of this product with a specified fungicide to achieve protectant/residual control of powdery mildew.</p> <p>For additional instructions, see Application Guidelines and Notes to User: Understanding Plant Sensitivity sections of this label.</p>

Fruit, Nut And Vine Crops

Citrus fruits (such as: citron, grapefruit, kumquat, lemon lime, tangelo, and tangerine), **Pome fruits** (such as: apple, crabapple, pear and quince), **Stone Fruits** (such as: apricot, cherry, nectarine, peach, plum and prune), **Small Fruits and Berries** (such as: blackberry, blueberry, cane berries, cranberry, currants, grape, raspberry, strawberry, boysenberry, and olallieberry) and **Tree Nuts** (such as: almond, chest-nut, filbert, pecan, pistachio, black and English walnut) and **Pomegranates***.

* Not approved for use in California

Use Recommendations:

Stand-alone Rate: Apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the Mixing and Application section of this label for general rate, timing and application information except as noted below.

- **For all Fruit and Nut Crops:** Apply to wet (minimize run off) with an air blast or other appropriate sprayer. Application of excessive water volumes will increase the potential for fruit injury by causing collection of spray on the bottom of fruit, especially when poor drying conditions exist.
- **Grapes:** This product may alter the waxy bloom and or cause marking on the surface of grapes which can affect the quality rating of table grapes at harvest. To reduce potential for fruit injury, do not apply in greater than 75 gallons of water per acre on table grapes after berries are 6 -7 mm in diameter. **Do not apply this product to Calmeria or Italia varieties of grapes.**
- **Citrus (Precaution):** Fruit marking may occur when sooty mold is present.
- **Pears:** **Do not apply** this product after the delayed dormant stage on fresh market pear varieties including d'Anjou and Asian pears. Applications after fruit set may cause marking which can reduce market value of the fruit.
- **Stone Fruits:** Concentrate (air blast) applications are specified with a maximum volume of 100 gallons per acre on smooth skinned fruits and 175 gallons per acre on peaches. Do not make dilute spray applications on smooth skinned fruit after fruit formation. This product is not specified for use on yellow skinned nectarine varieties. **Do not apply M-Pede to sweet cherries between fruit formation and harvest.**

Nursery and non-bearing trees can be sprayed to runoff with no more than 3 consecutive applications with 7-day intervals.

Pest	Recommendations
Citrus rust mites	Apply a 1-2% v/v solution of this product. Use of a suitable citrus spray oil in combination with this product applied to wet (minimize run-off) with an air blast or other appropriate sprayer may help improve performance.
European red mites, Pacific mites, two spotted mites, Willamette mites	Apply a 1-2% v/v solution of this product to control motile stages. To achieve enhanced and residual control, use a 1-2 % v/v solution of this product in combination with products such as Vendex® or Kelthane™.
Green apple aphids	To achieve enhanced and residual control, use a 1 - 2% v/v solution of this product in combination with products such as Thiodan®.
Western grape aphids and variegated leafhoppers	To achieve enhanced and residual control, use of a 1 -2 % v/v solution of this product in combination with products such as Pyrellin® or Pyrenone®. Scout and make first application to control nymphs during the first generation (first brood) when the majority of nymphs are in the third to fourth instars. This product is effective for late season and preharvest suppression of leafhoppers in wine and raisin grapes.
Pear psylla	Apply a 1-2% v/v solution of this product at delayed dormant to control winterform and newly hatched nymphs. Make follow up applications on processing pears at petal fall and turn down for control of 1st and 2nd generation nymphs before they mature into fourth instars.
Rosy apple aphids	Apply a 1-2% v/v solution of this product. Addition of an appropriate spray oil to this product may help improve performance. Time sprays to coincide with pre-pink or pink stages of apples.
White apple leafhoppers	To achieve enhanced and residual control, use a 1 -2% v/v solution of this product in combination with products such as Thiodan®. Target 1st generation nymphs before they mature into flyers.
Other aphids, campylomas, mealybugs, rust mites, pear slug (sawfly larvae) scale crawlers, leafhoppers and whiteflies	See Mixing and Application section for information on rates, mixing and application.
Powdery mildew	Grapes: Apply a 1-2% v/v solution of this product to control powdery mildew spores and hyphae. Initiate sprays at bud break or as appropriate based on local powdery mildew control recommendations. Repeat at 7 to 10 day intervals, or as needed through veraison (development of variety-specific color). Do not apply past veraison. Schedule a follow-up fungicide application within 7 to 10 days after each application when M-Pede is used alone. Use this product in a scheduled preventive spray program with other labeled fungicides. Do not mix with sulfur. Do not use within 3 days of sulfur application. This product may be applied in tank mixes with other labeled fungicides. Consult your local extension specialist, certified crop advisor, and/or manufacturer representative for specific product recommendations. Tank mix this product at the rate of 1-2% v/v with labeled rates of companion pesticides. Rates of M-Pede below 1.5% v/v will not be fungicidal against powdery mildew. Complete coverage of grape clusters as well as leaf surfaces is essential for effective control. For additional instructions on use with sulfur, see Application Guidelines and Notes to User: Understanding Plant Sensitivity sections of this label.
Powdery Mildew	Citrus fruit, Pome fruit, Stone fruit, Small fruits and Berries, and Tree Nuts: Apply a 1 - 2% v/v solution of this product to control powdery mildew spores and hyphae. Stand Alone Rate: Apply a 1 - 2% v/v solution of this product when first signs of powdery mildew appear or as appropriate based on local powdery mildew recommendations and repeat at 7 to 14-day intervals, or as needed. Schedule a follow-up fungicide application within 7 to 14-days after each application when this product is applied alone. Tank Mix Rate: Apply a 1 - 2% v/v solution of this product with a fungicide to achieve protectant/residual control of powdery mildew. Do not mix with sulfur. Do not use within 3 days of a sulfur application.

Field Crops

Alfalfa*, Canola*, Cotton, Peanut*, Tobacco* and Wheat*

*** Not approved for use in California**

Pests Controlled: Aphids, caterpillars (in tank mix combination only), exposed thrips, greenbugs, fleahoppers, plant bugs (such as lygus and stink bugs), spider mites and whiteflies.

Use Recommendations: Refer to the Mixing and Application section of this label for general rate, timing and application information except as noted below.

Stand Alone Rate: Use 4 pints of this product per acre when applications are made in 3 - 25 gallons of water per acre. Use a 2% v/v spray solution of this product when 25 or more gallons of water are applied per acre.

Tank Mixtures:

- When used in combination with other insecticides, use 0.75 to 4 pints of this product per acre when applied in 3 - 25 gallons of water per acre. Use a 1 - 2% v/v solution of this product when greater than 25 gallons of water are applied per acre.
- To achieve enhanced and residual control of caterpillars, use this product in combination with other labeled insecticides.
- To achieve enhanced and residual control of other insects (aphids, thrips, greenbug, fleahopper, plant bug, spider mite, white fly), use this product in combination with other labeled insecticides.
- In situations where thorough coverage of pests is not possible or practical, this product may be tank mixed with one of the companion pesticides listed above.
- This product may be tank mixed with penetrator type adjuvants for application to cotton, peanuts and tobacco only if prior use under local use conditions has demonstrated plant safety.

Hops*, Coffee*, Banana* and Pineapple*

*** Not approved for use in California**

Pests controlled: Aphids, leafhoppers, mealybugs, spider mites, plant bugs, scales, exposed thrips and whiteflies.

Use Recommendations:

Stand Alone Rate: Apply a 1 - 2% v/v solution of this product, unless otherwise noted. Refer to the Mixing and Application section of this label for general rate, timing and application information except as noted below.

Tank Mix Rates: To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a companion product.

- Use a 1% v/v rate with most companion pesticides targeted at the same pest(s) as M-Pede.
- Lower rates (0.25 - 1.0 % v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.

See Application Guidelines and Notes to User: Understanding Plant Sensitivity for additional comments.

Turf

Pest	Recommendations
Chinch bugs, cutworms, fleas, greenbugs, grubs, mites, mole crickets and sod webworms	<p>Stand Alone Rate: Apply a 1 - 2% v/v solution of this product, unless otherwise noted. Refer to the Mixing and Application section of this label for general rate, timing and application information, except as noted below.</p> <p>Tank Mix Rate: To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with products such as: Pageant®, Dursban®, malathion, diazinon or Orthene. For use on mole crickets, irrigate turf prior to application of this product to bring mole crickets to the surface.</p>
Powdery Mildew	<p>Stand-alone Rate: Apply a 1.5 - 2% v/v solution of this product when the powdery mildew is first observed and repeat every 7 to 14-days, or as needed.</p> <p>Tank Mix Rate: This product can also be tank mixed with other fungicide products suitable for turf powdery mildew use. Tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.</p>

**Ornamental Landscape Trees and Shrubs, Christmas Trees,
Flowers, Bedding and Indoor Plants**

Pests controlled: Adelgids, ants, aphids, buck moth larvae, earwigs, elm leaf beetle larvae, sawfly larvae, gypsy moth eggs and larvae, Japanese beetles, lace bugs, leafhoppers, mealybugs, rust mites, phylloxera, spider mites, shore fly, plant bugs, psyllid, scales, tent caterpillars, exposed thrips, whitefly and powdery mildew.

Use Recommendations:

Stand Alone Rate: Apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the Mixing and Application section of this label for general rate, timing and application information except as noted below.

Tank Mix Rate: To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a recommended product. Tank mixes with products containing Chlorothalonil should be avoided as they can cause severe phytotoxicity. Lower rates (0.25 - 1.0 % v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.

Note: Unless otherwise noted, apply this product to wet (minimize run off). If wilting occurs a few hours after application, rinse with a clean water spray. Since applications may cause injury to flowers of some plant cultivars, test product on a few flowering plants under local use conditions prior to large scale use.

Pest	Recommendations
Adelgid, psyllid, scale on trees and shrubs	Spray to wet infested plant surface.
Balsam woolly adelgid	Spray trees thoroughly when nymphs are abundant in early spring and/or fall. Make a second application 10 days later.
Cooley Spruce gall adelgid	Apply a 4% v/v solution to spruce in fall or spring when females begin egg laying. On Douglas fir, control exposed "woolly aphids" in early spring immediately before bud break (April) or in the fall (Sept.-Oct.) after foliage has hardened off.
Hemlock woolly adelgid	Apply this product immediately after detecting an adelgid infestation to avoid the spread of the pest. In regions with heavy infestations and on trees with a history of infestation, a total of four applications made in April/May, June, August/September and October may be necessary. Because it is a contact insecticide, do not use this product as a preventative control measure.
Conifer and pine needle scale	When insects first appear, apply a 1 to 2% v/v spray to thoroughly wet crawlers.
Tent caterpillar	Apply a 3% v/v solution. Spray directly on young larvae when congregated on outside of tent or dismantle tents and spray to thoroughly wet larvae.
Spider mite	Wet underside of leaves and needle sheaths. Wait 7 - 10 days to allow viable eggs to hatch and make a second application before mites reach egg laying maturity. For residual control, apply in a tank mix combination with a labeled companion product such as Avid®.
Earwig	Spray directly on insects after disturbing their hiding place.
Leafminer (Dipteran)	Apply in tank mix combination with a labeled companion insecticide such as Avid which has residual activity.
Whiteflies	Scout plants regularly and apply a 1 to 2% v/v solution when pests first appear. Make a second application 7-days later to target newly hatched nymphs. Make additional applications at weekly intervals, but avoid more than three consecutive weekly applications. Do not apply to poinsettia bracts. To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with products such as: Avid, Dursban, Mavrik Aquaflo®, Pounce®, Talstar® or Tempo®. Lower rates (0.25 - 1% v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.
Gypsy moth	To suppress gypsy moth populations, apply a 3% v/v solution directly to the larvae.
Blossom thrips on African violets	Spray to contact thrips on blooms.
Euonymous scale	Thoroughly wet crawlers with a 2% solution. Delayed dormant applications of this product (1 % v/v solution) plus summer oil (1 % v/v solution) will also be effective.
Spruce spider mite on conifers	Apply 1-2% solution of this product to thoroughly wet infested needles. Repeat application after 7-days if needed.
Powdery mildew on greenhouse grown roses	Apply a 1-2% solution of this product to control powdery mildew spores and hyphae. Initiate sprays when first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Alternate applications of this product with other fungicides to avoid making more than three successive applications of this product at intervals of 7-days or less. Roses may be treated with sublimated sulfur using sulfur-heating pots or similar devices before or after treatment with M-Pede. To minimize the potential for plant injury, allow 24 hours to elapse between M-Pede and sublimated sulfur applications. Mixing other forms of sulfur (sprayable or dusting) or applying this product within up to 5 days of a sulfur application may also increase the potential for plant injury, especially during hot weather (>90°F).

STORAGE AND DISPOSAL

Do not contaminate water, feed or foodstuff by storage or disposal.

For rigid nonrefillable containers 5 gallons or less:

Pesticide Storage: Store only in original container; in a dry place; inaccessible to children and pets. Keep container tightly sealed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For refillable rigid containers larger than 5 gallons:

Pesticide Storage: Store only in original container; in a dry place; inaccessible to children and pets. Keep container tightly sealed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For nonrefillable rigid containers larger than 5 gallons:

Pesticide Storage: Store only in original container; in a dry place; inaccessible to children and pets. Keep container tightly sealed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank to collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE)

CALL CHEMTREC® (800) 424-9300.

For other product information, contact Gowan Company, LLC or see Material Safety Data Sheet.

NOTICE ON CONDITIONS OF SALE

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. To the extent consistent with applicable law, all such risks are assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified. Country: United States of America.

M-Pede® and Carzol® are registered trademarks of Gowan Company LLC
Vendex® is a registered trademark of E.I. DuPont de Nemours & Company
Kelthane and Dursban® is a trademark of Dow AgroSciences Canada Inc
Thiodan® is a registered trademark of Hoechst Schering AgrEvo GmbH
Pyrellin® is a registered trademark owned by Webb Wright Corporation
Pyrenone® and Tempo® are registered trademarks of Bayer AG. Bayer Environmental Science
Pageant is a trademark of BASF
Avid® is a registered trademark of a Syngenta Group Company
Pounce® and Talstar® are registered trademarks of FMC
Maverik Aquaflo® is a registered trademark of Wellmark International
Chemtrek® is a registered trademark of American Chemistry Council, Inc.

1 Identification

· Product identifier

· Trade name: **M-Pede® Insecticide-Miticide-Fungicide**

EPA Registration No.: 10163-324

· CAS Number: Active Ingredient: Potassium Salts of Fatty Acids (49%), CAS:067701-09-1

· Relevant identified uses of the substance or mixture and uses advised against

· Sector of Use Agriculture use

· Application of the substance / the mixture Agricultural Insecticide-Miticide-Fungicide

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Gowan Company

P.O. Box 5569

Yuma, Arizona 85366-5569

(928) 783-8844

· Information department: sds@gowanco.com

· Emergency telephone number:

Chemtrec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300

Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (Prosar®): (888) 478-0798

2 Hazard(s) identification

· Classification of the substance or mixture



Skin Irrit. 2 H315 Causes skin irritation.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07

· Signal word: Warning

· Hazard statements

Causes skin irritation.

· Precautionary statements

Wear protective gloves.

Wash thoroughly after handling.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If on skin: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

· Hazard description:

Causes substantial but temporary eye injury and skin irritation.

Do not get in eyes, on skin or clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 1)

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



HAZARD INDEX:

- 4 Severe Hazard
- 3 Serious Hazard
- 2 Moderate Hazard
- 1 Slight Hazard
- 0 Minimal Hazard

· **HMIS-ratings (scale 0 - 4)**



HAZARD INDEX:

- 4 Severe Hazard
- 3 Serious Hazard
- 2 Moderate Hazard
- 1 Slight Hazard
- 0 Minimal Hazard

· **Other hazards**

- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable in US.
 - **vPvB:** Not applicable in US.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed.

· **Dangerous components:**

67701-09-1	Potassium Salts of Fatty Acids	49.0%
------------	--------------------------------	-------

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact 1-888-478-0798 for emergency medical treatment information.

No special measures required.

· **After inhalation:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call poison control center or doctor for further treatment advice.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 2)

- **After skin contact:**
 - Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.
- **After eye contact:**
 - Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.
 - Call a poison control center or doctor for treatment advice.
- **After swallowing:**
 - Call a poison control center or doctor immediately for treatment advice.
 - Have person sip a glass of water if able to swallow.
 - Do not induce vomiting unless told to do so by a poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** Unknown
 - **Indication of any immediate medical attention and special treatment needed**
 Probable mucosal damage may contraindicate the use of gastric lavage.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
 CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Use water spray. Cool tank/container with water spray. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water will increase contamination hazard.
 - **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment described in Section 8.
- **Environmental precautions:**
 Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
- **Methods and material for containment and cleaning up:**
 Contain spilled material if possible. Small spills: Absorb with materials such as clay, dirt, sand, or Zorb-all®. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Gowan Company for clean-up assistance.
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 3)

7 Handling and storage

· Handling:

· Precautions for safe handling

Causes substantial but temporary eye injury and skin irritation. Do not get in eyes, on skin or clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

· **Information about protection against explosions and fires:** No special measures required.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Store only in original container; in a dry place; inaccessible to children and pets. Keep container tightly sealed when not in use.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:** Store in a dry place.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· Control parameters

· Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information:

The lists that were valid during the creation were used as basis.

Causes substantial but temporary eye injury and skin irritation. Do not get in eyes, on skin or clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

· **Breathing equipment:** Not required.

· Protection of hands:



Protective gloves

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 4)

- **Body protection:**
 - Coveralls
 - Waterproof gloves
 - Shoes plus socks

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- **Form:** Liquid
- **Color:** Yellow
- **Odor:** Musty
- **Odour threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 10.2

· Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

· **Flash point:** 160 °C (320 °F)

· **Flammability (solid, gaseous):** Not applicable.

· Ignition temperature:

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.02 g/cm³ (8.512 lbs/gal)

- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

· Solubility in / Miscibility with

· **Water:** Dispersible.

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity:

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

· Solvent content:

· **Solids content:** 100.0 %

· **Other information** No further relevant information available.

US

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 5)

10 Stability and reactivity

- **Reactivity**
 - **Chemical stability** Stable under normal conditions
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **Primary irritant effect:**
 - **on the skin:**
Brief contact may cause skin irritation with local redness. Prolonged contact may cause severe skin irritation with local redness and discomfort. Effects may be delayed. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The dermal LD50 has not been determined.
 - **on the eye:**
May cause moderate eye irritation. May cause corneal injury. Mist may cause eye irritation. Effects may be delayed.
 - **Sensitization:** No sensitizing effects known.
 - **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
 - **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· NTP (National Toxicology Program)
--

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration)
--

None of the ingredients are listed.

12 Ecological information

- **Toxicity**
This product may be hazardous to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:** Do not allow product to reach ground water, water course or sewage system.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 6)

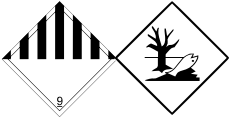
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:**
Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
- **Uncleaned packagings:**
 - **Recommendation:**
Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

14 Transport information

- **UN-Number**
 - **DOT, ADR, ADN** Not Regulated
 - **IMDG, IATA** UN3082
- **UN proper shipping name**
 - **ADR, ADN** Not Regulated
 - **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
 - **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- **Transport hazard class(es)**
 - **ADR, ADN**
 - **Class** Not Regulated
- **IMDG, IATA**



 - **Class** 9 Miscellaneous dangerous substances and articles
 - **Label** 9

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 7)

· Packing group	
· ADR	Not Regulated
· IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Yes
	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Not applicable
· EMS Number:	F-A,S-F
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· UN "Model Regulation":	Non-bulk: Not regulated Bulk (greater than 11,235 pounds): UN3082, RQ, Environmentally Hazardous Substance, Liquid, N.O.S., (contains Potassium Hydroxide), 9, PGIII

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

· **SARA Title III**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

(Contd. of page 8)

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

Not applicable

· **Signal word:**

(USA EPA) WARNING

· **Hazard statements**

Causes substantial but temporary eye injury and skin irritation.

Do not get in eyes or on clothing.

Wear goggles or face shield.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

Causes skin irritation.

· **Precautionary statements**

Wear protective gloves.

Wash thoroughly after handling.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If on skin: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Supply Chain

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 06/30/2015 / 4

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA

Printing date 06/30/2015

Reviewed on 06/30/2015

Trade name: M-Pede® Insecticide-Miticide-Fungicide
EPA Registration No.: 10163-324

- *Sources M-Pede® is a registered trademark of Gowan Company, L.L.C.*
- ** Data compared to the previous version altered.*

(Contd. of page 9)

NOTE:

When this document is printed at 100% (actual size), this text is 6 pt Helvetica Neue Bold.
 When this document is printed at 100% (actual size), this text is 6 pt Helvetica Neue Condensed.



Maxforce®

COMPLETE

brand **Granular Insect Bait**

FOR INDOOR AND OUTDOOR CONTROL OF ANTS, CRICKETS AND ROACHES¹
 FOR USE IN AND AROUND STRUCTURES AND RESIDENTIAL AREAS

Active Ingredients: Hydramethylnon†; tetrahydro-5, 5-dimethyl-2(1H)-pyrimidinone, (3-(4-(trifluoromethyl) phenyl)-1-(2-(4-(trifluoromethyl) phenyl) ethenyl)-2-propenylidene) hydrazone..... 1.00%
Other Ingredients: 99.00%
Total 100.00%

†CAS No. 67485-29-4
 EPA Reg. No. 432-1255

EPA Est. No. 67572-GA-1

**KEEP OUT OF REACH OF CHILDREN
 CAUTION**

PRECAUTION: AL USUARIO: Si usted no lee ingles no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
 See inside leaflet for complete First Aid Instructions, Precautionary Statements, Directions for Use and Storage and Disposal Instructions.

**Net Weight
 8 Ounces (227 g)
 79898851**

80021658B 120608AV1

FIRST AID

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-334-7577 for emergency treatment information.

QUESTIONS? COMMENTS? Call: 1-800-331-2867.

**PRECAUTIONARY STATEMENTS
 HAZARDS TO HUMANS AND DOMESTIC ANIMALS
 CAUTION**

Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

STORAGE AND DISPOSAL:

Do not contaminate water, food or feed by storage or disposal.
PESTICIDE STORAGE: Store in original container in a cool dry secure area (out of reach of children).
 Keep container closed when not in use. Avoid contamination with other insecticides.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Refillable container. Refill this container with Maxforce® Complete Brand Granular Insect Bait only. Do not reuse this container for any other purpose. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.



Produced for:
Bayer Environmental Science
 A Division of Bayer CropScience LP
 2 T. W. Alexander Drive
 Research Triangle Park, NC 27709

MAXFORCE 432-1255
 Process Color



BLACK

MAXFORCE 432-1255
 Spot Colors



PANTONE 287



PANTONE 279



PMS 186 C

Pull here to open ➤

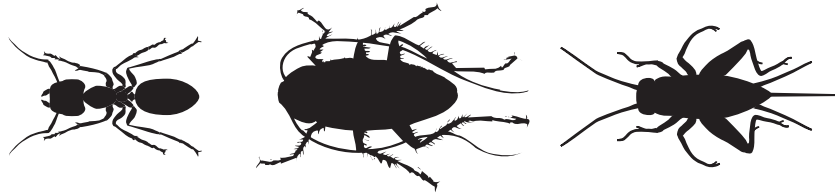
FIRST AID

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-334-7577 for emergency treatment information.

QUESTIONS? COMMENTS? Call: 1-800-331-2867.



This Maxforce Complete Brand Granular Insect Bait controls:

Roaches ¹	Crickets	Silverfish	Firebrats	Earwigs
Ants including the following ant species:				
Acrobat	Carpenter	Field	Harvester	Pharaoh
Argentine	Cornfield	Fire ²	Odorous House	Thief
Big Headed	Crazy	Ghost	Pavement	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)

Applicators and handlers must wear: Shoes plus socks.

Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

STORAGE AND DISPOSAL:

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container in a cool dry secure area (out of reach of children).

Keep container closed when not in use. Avoid contamination with other insecticides.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Refillable container. Refill this container with Maxforce® Complete Brand Granular Insect Bait only. Do not reuse this container for any other purpose. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

GENERAL INFORMATION

Maxforce Complete Brand Granular Insect Bait is a ready-to-use product for use indoors and outdoors and around buildings, on lawns, and other non-crop areas* such as residential areas, the non-food/non-feed areas of institutional and commercial establishments including warehouses, restaurants, food processing plants, supermarkets, hospitals, nursing homes, motels, hotels, apartment buildings, schools, laboratories, computer facilities, pet shops, zoos, sewers, highway rights-of-way and medians, traffic islands, utility rights-of-way (including power lines, pipelines, aqueducts) managed turf areas (non-crop*) (including school yards, playgrounds, athletic fields, amusement parks, picnic areas, recreation areas, office parks, industrial grounds, airports, shopping centers, public parks, arboretums, public gardens, monument sites, cemeteries and mausoleums, golf courses, race tracks, fairgrounds, outdoor amphitheaters, sod farms, and ornamental nurseries). The use of this product on pasture and rangeland is unlawful. Do not graze or feed lawn or sod clippings to livestock. Maxforce Complete Brand Granular Insect Bait contains a special blend of foods, combined with the delayed-action stomach poison, hydramethylnon. The delayed action of the active ingredient allows foraging ants to bring the bait back to the nest so that the entire colony, including the queen, is destroyed. When properly used, this bait will control many of the following insects, including ants, cockroaches¹, crickets, and silverfish before they can enter a structure. Do not apply other insecticides (such as aerosols, sprays, etc.) on top of or in close proximity to Maxforce Complete Brand Granular Insect Bait, as it will reduce the effectiveness. Expect to see fewer insects within a week.

*Do not use on other non-crop areas in California.

General Precautions

Do not apply other insecticides (such as aerosols, sprays, etc.) on top or in close proximity to this product, as it will reduce effectiveness.

Application Restrictions

Do not apply this product by any method not specified on this label. The use of this product on pasture and rangeland is unlawful. Do not graze or feed lawn or sod clippings to livestock. DO NOT

USE ON EDIBLE FOOD CROPS OR ON AREAS INTENDED FOR EDIBLE FOOD CROP PRODUCTION.
Not for use in USDA meat and poultry plants.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

APPLICATION INSTRUCTIONS

KEEP PEOPLE AND PETS OUT OF AREA DURING APPLICATION.

FOR OUTDOOR USE

1. AROUND STRUCTURES: Maxforce Complete Brand Granular Insect Bait may be sprinkled around structures and/or applied to refillable/serviceable bait stations as outlined below. Sprinkle this product evenly in a 1-2 foot wide band adjacent to the structure at a rate of 0.5 oz (one tablespoon) of bait per 25 linear feet. NOTE: Around structures the total application should not exceed 4-8 oz per 200-400 linear feet (or 0.5 oz per 25 linear feet). A typical application would be 4-8 oz adjacent to an average sized home of 200-400 linear feet. Be sure to treat areas such as porches, patios, driveways, sidewalks, flower gardens, landscape timbers and around trees, wood piles, air conditioning units and garbage receptacles. **DO NOT USE ON EDIBLE FOOD CROPS OR ON AREAS INTENDED FOR EDIBLE FOOD CROP PRODUCTION.** Treat visible ant trails as well as cracks or crevices where insects (ants, roaches, crickets) may enter a structure. **REFILLABLE STATIONS:** Maxforce Complete Brand Granular Insect Bait may be placed into refillable tamper resistant bait stations. Place up to 1 to 3 oz (2 to 6 Tbsp.) of bait into tamper resistant stations and close securely after application. During follow-up visits inspect placements and reapply as needed. Refillable tamper resistant stations should be placed every 20 to 30 feet around the perimeter of a structure. Use approximately 2 stations per side of a typical single family home. For best results, place stations near: air conditioning units, water faucets, foundation vents and weep holes, decks, utility entryways (e.g. electrical, cable TV) and wherever target pests are frequently found. Stations may also be placed along fence lines and property lines to intercept foraging pests. Regularly inspect all stations and replace bait as needed for continual control. Position Refillable Bait Stations in areas where they will not be damaged by lawn equipment such as mowers and trimmers. If the station is not equipped with a sticker to identify the contents, apply a sticker to the outside or inside of the station.

2. BROADCAST APPLICATION: Broadcast this product uniformly at a rate of 1 oz per 1,800 sq ft (equivalent to 1.5 lbs/A).

3. FIRE ANTS² AND OTHER MOUND BUILDING ANTS³: Sprinkle approximately two tablespoons (1 oz) of bait around each mound. For best results, do not apply bait directly in or on the mound. Do not disturb the mound. Ants that are agitated may not feed on the bait.

For INDOOR USE:

AVOID CONTAMINATION OF FOOD, FOOD CONTACT SURFACES AND FEEDSTUFFS. NOTE: Indoor applications are limited to areas that are inaccessible to children or pets, such as cracks, crevices, wall voids, unfinished attics, crawl spaces, refillable tamper-resistant bait stations and behind electrical switch plates, within residential and non-residential buildings or structures and within non-food/non-feed areas of industrial, institutional, and commercial buildings. Non-food/non-feed areas include bedrooms, living rooms, bathrooms, closets, media rooms, garbage rooms, lavatories, entries, vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling).

Apply up to 0.5 oz (one tablespoon) of bait per crack, crevice or other inaccessible areas where insects may hide or live. Apply product using suitable application equipment (such as the Centro Bait Master.) Wipe up any loose or excess granules. Apply evenly in unfinished attics and crawl spaces at a rate of 0.5 oz per 100 sq ft only if the space is secured or otherwise inaccessible to children and domestic animals.

¹ German, American, Oriental, and Smoky Brown Roaches

² Native and Imported

³ Pavement, Field, Cornfield, and Harvester Ants

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Bayer (reg'd), the Bayer Cross (reg'd) and Maxforce® are registered trademarks of Bayer.



Produced for:

Bayer Environmental Science

A Division of Bayer CropScience LP

2 T. W. Alexander Drive

Research Triangle Park, NC 27709



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

1/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE
COMPANY/UNDERTAKING**

Product identifier

Trade name MAXFORCE® COMPLETE BRAND GRANULAR INSECT BAIT

Product code (UVP) 79695888

SDS Number 102000021972

EPA Registration No. 432-1255

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Emergency telephone no.

**Emergency Telephone
Number (24hr/ 7 days)** 1-800-334-7577 (24 hours/day)

**Product Information
Telephone Number** 1-800-331-2867

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Specific target organ toxicity - repeated exposure : Category 1

Reproductive toxicity : Category 1B



Signal word: Danger

Hazard statements

May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Do not handle until all safety precautions have been read and understood.



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

2/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF exposed or concerned: Get medical advice/ attention.
Store locked up.
Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Hydramethylnon	67485-29-4	1.00
Oleic acid	112-80-1	2.30

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

3/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable None known.

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point not applicable

Autoignition temperature no data available

Lower explosion limit not applicable

Upper explosion limit not applicable

Explosivity no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

4/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Avoid dust formation. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion Dust may form explosive mixture in air.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container and out of the reach of children, preferably in a locked storage area. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Hydramethylnon	67485-29-4	1.4ug/m3 (AN ESL)	07 2011	TX ESL
Hydramethylnon	67485-29-4	14ug/m3 (ST ESL)	07 2011	TX ESL

No control parameters known.

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection Chemical resistant nitrile rubber gloves



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

5/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

Eye protection	Safety glasses with side-shields
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	yellow-brown to brown
Physical State	granular
Odor	characteristic
Odour Threshold	no data available
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	31 - 35 lb/ft ³
Evaporation rate	not applicable
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	no data available
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable
Viscosity	not applicable
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

6/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	no data available
Incompatible materials	no data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Skin contact, Ingestion

Immediate Effects

Skin Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Information on toxicological effects

Acute oral toxicity LD50 (rat) > 5,000 mg/kg

Acute inhalation toxicity
no data available

Acute dermal toxicity LD50 (rabbit) > 2,000 mg/kg

Skin irritation Slight irritation (rabbit)

Eye irritation No eye irritation (rabbit)

Sensitisation Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Hydramethylnon caused specific target organ toxicity in experimental animal studies in the following organ(s): testes, kidneys.

Assessment Mutagenicity

Hydramethylnon was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Hydramethylnon was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

7/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Hydramethylnon caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. Hydramethylnon caused testicular damage and male infertility.

Assessment developmental toxicity

Hydramethylnon caused developmental toxicity only at dose levels toxic to the dams. Hydramethylnon caused a delayed foetal growth.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Ictalurus punctatus (Channel catfish)) 0.09 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to aquatic invertebrates	NOEC (Daphnia magna (Water flea)) 0.000088 mg/l Exposure time: 21 Days The value mentioned relates to the active ingredient hydramethylnon. EC50 (Mysidopsis bahia (mysid shrimp)) 0.0544 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to aquatic plants	EC50 (Scenedesmus quadricauda (Green algae)) 0.01112 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient hydramethylnon.
Biodegradability	Hydramethylnon: ; not rapidly biodegradable
Koc	Hydramethylnon: Koc: 730000
Bioaccumulation	Hydramethylnon: Bioconcentration factor (BCF) 34,900; Does not bioaccumulate.



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

8/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

Mobility in soil	Hydramethylnon: Immobile in soil
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Never place unused product down any indoor or outdoor drain.
Contaminated packaging	Do not re-use empty containers. Place empty container in trash. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (HYDRAMETHYLNON MIXTURE)
IATA	
UN number	3077
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (HYDRAMETHYLNON MIXTURE)

This transportation information is not intended to convey all specific regulatory information relating to this



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

9/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN
POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1255

US Federal Regulations

TSCA list

Oleic acid 112-80-1

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Hydramethylnon 67485-29-4 25,000lbs

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Hydramethylnon	67485-29-4	Developmental toxin.
Hydramethylnon	67485-29-4	Male reproductive toxin.

US State Right-To-Know Ingredients

Hydramethylnon	67485-29-4	NJ
Oleic acid	112-80-1	RI

Canadian Regulations

Canadian Domestic Substance List

Oleic acid 112-80-1

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification



**MAXFORCE® COMPLETE BRAND GRANULAR INSECT
BAIT**

Version 2.0 / USA
102000021972

10/10
Revision Date: 11/07/2014
Print Date: 11/07/2014

criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if absorbed through skin.
Avoid contact with skin, eyes and clothing.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 11/07/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



MERUS™ 2.0

FOR USE IN ORGANIC PRODUCTION

For control of adult mosquitoes in Outdoor Residential, Recreational and Agricultural Areas
Contains pyrethrins - a botanical insecticide derived from chrysanthemums

ACTIVE INGREDIENT:	
Pyrethrins, a botanical insecticide	5.0%
OTHER INGREDIENTS*	95.0%
	100.0%
Contains 0.41 pounds Pyrethrins per gallon	
* contains petroleum distillate	

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

Have product container or label with you when calling a poison control center or doctor, or going for treatment. **For medical emergencies or information on health concerns for this product, you may call 1-800-214-7753.**

IF SWALLOWED:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
----------------------	--

NOTICE TO PHYSICIAN: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Contains petroleum distillate. Harmful if swallowed. Wash hands thoroughly with plenty of soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE): Mixers, loaders, applicators and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. In addition, all handlers, except for applicators using truck-mounted or aerial application equipment, must wear chemical resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, Viton, Selection Category E). See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

Apply this product only as specified on this label. This product is not for use in outdoor residential misting systems. Do not apply this product with thermal fogging equipment. Do not apply this product in enclosed spaces using hand-held or portable backpack spray equipment. Do not make applications during rain.

Apply this product only as an aerial or ground ULV (vehicle-mounted, backpack, or hand-held ULV) mosquito adulticide.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

The maximum application rate for wide-area mosquito adulticide applications is 0.0025 lb a.i. / acre per day. When targeting *Aedes taeniorhynchus* and other difficult species, applications may be made up to 0.008 lb a.i./acre/day.

Do not apply more than 0.2 lb a.i. per acre per year in any treated area. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

WIND SPEED: Apply only when wind speed is greater than 1 mph.

MERUS 2.0 may be used undiluted or diluted with suitable light mineral oil and applied as an ultra low volume (ULV) non-thermal aerosol (cold fog) or in suitable mechanical spray equipment. MERUS 2.0 cannot be diluted in water.

MERUS 2.0 may be used to control adult mosquitoes in mosquito control programs including residential, industrial, recreational, and agricultural areas, in vegetation surrounding swamps, marshes, overgrown waste areas, roadsides and pastures and other areas adult mosquitoes occur. For best results, treat when mosquitoes are most active. Application during the cool hours of the night or early morning is usually preferable, with a minimum application temperature of 50°F.

SPRAY DRIFT MANAGEMENT for WIDE AREA MOSQUITO ABATEMENT: A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

GROUND-BASED WIDE-AREA MOSQUITO ABATEMENT APPLICATION: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 µm). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

To control mosquitoes, apply MERUS 2.0 using any standard ULV vehicle-mounted applicator capable of producing a non-thermal (cold fog) aerosol spray cloud with appropriately sized droplets. Apply undiluted at a flow rate of 3.0 to 4.7 fluid ounces per minute at an average vehicle speed of 10 mph. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.0016 to 0.0025 pounds active ingredient per acre. Within this range, vary flow rate according to vegetation density and mosquito population. Use higher rate in heavy vegetation or when pest population numbers are high.

If dilution is preferred, adjust the flow rate accordingly to achieve 0.0016 to 0.0025 pounds a.i./Acre. Applicable flow rates for a 1 part concentrate to 1 part oil dilution are presented. If an alternate dilution rate is used, adjust the flow rate accordingly.

Rates to use MERUS 2.0 Undiluted for mosquito control:

a.i./Acre (lb)	Application Rates (Fl.oz./Minute) at vehicle speeds of:				MERUS 2.0 / Acre (Fl.oz.)
	5 MPH	10 MPH	15 MPH	20 MPH	
0.0025	2.4	4.7	7.1	9.5	0.78
0.0021	2.0	4.0	6.0	7.9	0.66
0.0018	1.7	3.4	5.1	6.8	0.56
0.0016	1.5	3.0	4.5	6.1	0.50

Applications up to 2.50 fl.oz. (0.008 lb a.i.) per acre may be made when targeting *Aedes taeniorhynchus* or other difficult to control species.

a.i./Acre (lb)	Application Rates (Fl.oz./Minute) at vehicle speeds of:				MERUS 2.0/ Acre (Fl.oz.)
	5 MPH	10 MPH	15 MPH	20 MPH	
0.008	7.6	15.1	22.7	30.3	2.50

Rates to use a 2.5% pyrethrins dilution (1 to 1 dilution ratio) for mosquito control:

a.i./Acre (lb)	Application Rates (Fl.oz./Minute) at vehicle speeds of:				MERUS 2.0 / Acre (Fl.oz.)
	5 MPH	10 MPH	15 MPH	20 MPH	
0.0025	4.7	9.5	14.2	18.9	1.56
0.0021	4.0	7.9	11.9	15.9	1.31
0.0018	3.4	6.8	10.2	13.6	1.12
0.0016	3.0	6.1	9.1	12.1	1.00

Urban ULV mosquito control: for control of resting or flying adult mosquitoes in areas such as utility tunnels, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings. Apply using handheld or truck-mounted ULV equipment, or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0025 pounds a.i. per acre per day (0.78 fluid ounces of undiluted spray per acre per day). Do NOT use hand-held equipment for this type of application in enclosed spaces.

MERUS 2.0 may also be applied with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD. Use 0.50 to 0.78 fl.oz. of the undiluted spray per acre (equal to 0.0016 to 0.0025 lb.ai./acre) as a 50 ft (15.2 m) swath while walking at a speed of 2 mph (3.2 kph). Dilute with a suitable mineral oil if dilution is preferred. Do NOT use portable backpack equipment for application in enclosed spaces.

AERIAL WIDE-AREA MOSQUITO ABATEMENT APPLICATION:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 µm). The effects of flight speed, and for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Apply using nozzle height of no less than 100 feet for fixed wing aircraft or 75 feet for rotary wing aircraft above the ground or canopy, unless specifically approved by the state or tribe based on public health needs.

Apply by suitable fixed wing or rotary aircraft equipped with nozzles capable of producing a non-thermal (cold fog) aerosol spray cloud with appropriately sized droplets. Flow rate and swath width should be set so as to achieve 0.50 to 0.78 fluid ounces of undiluted MERUS 2.0 per acre.

a.i./Acre (lb)	MERUS 2.0 / Acre (Fl.oz.)
0.0025	0.78
0.0021	0.66
0.0018	0.56
0.0016	0.50

MERUS 2.0 may also be diluted with suitable diluent light mineral oil and applied by suitable aircraft at appropriate flow rates to achieve a dosage of 0.0016 to 0.0025 lb a.i. per acre. Diluted or undiluted, applications up to 2.50 fl.oz. MERUS 2.0 (0.008 lb a.i.) per acre/day may be made when targeting *Aedes taeniorhynchus* or other difficult to control species.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE AND SPILL PROCEDURES: Keep this product in its tightly closed original container when not in use. Store upright at room temperature in a dry (preferably locked) area that is inaccessible to children and animals. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

[For Nonrefillable Containers of 5 gallons or less]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For Refillable Containers]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling, if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

NOTICE: To the extent consistent with applicable law, Clarke Mosquito Control Products, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. To the extent consistent with applicable law, Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

MERUS™ is a trademark of Clarke Mosquito Control Products, Inc.

FOR MORE INFORMATION CALL 1-800-323-5727

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172



SAFETY DATA SHEET

MERUS™ 2.0

Effective Date: 1 June 2015

v.01

Page 1 of 8

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: MERUS™ 2.0

EPA Registration Number: 8329-94

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of adult mosquitoes

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24 hour Medical Emergency: POISON CONTROL (800) 214-7753

24 hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Classification

Aspiration Hazard, Category 1
Sensitization - Skin, Category 1
Acute Toxicity (Inhalation), Category 4
Flammable Liquid, Category 4

Hazard Statements

May be fatal if swallowed and enters airways.
May cause allergic skin reaction
Harmful if inhaled
Combustible Liquid

Pictogram:



Signal Word:

Danger

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection.

Keep away from flames and hot surfaces. – No Smoking.

RESPONSE: If swallowed: Immediately call a poison control center or doctor. Do NOT induce vomiting.

If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

MetaLarv[®] XRP

MOSQUITO GROWTH REGULATOR

EXTENDED RELEASE POUCH

ACTIVE INGREDIENT:

(S)-Methoprene (CAS # 65733-16-6)	4.25%
OTHER INGREDIENTS	95.75%
TOTAL	100.00%

EPA Reg. No. 73049-475

EPA Est. No. 33762-IA-001

List No. A505765

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
 - 4.1 Application Sites and Rates
- 5.0 Storage and Disposal
- 6.0 Warranty Statement

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact (PROSAR service) 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call Valent BioSciences 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards To Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

2.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Introduction

MetaLarv XRP Mosquito Growth Regulator Extended Release Pouch (hereafter referred to as MetaLarv XRP) are water soluble pouches containing 18 grams each of MetaLarv, an insect growth regulator for use against mosquito larvae. MetaLarv XRP is formulated to release S-methoprene over time, from a spherical pellet carrier. NOTE: MetaLarv XRP prevents development of mosquito larvae into adults. MetaLarv XRP has no effect on mosquitoes that have reached the pupal or adult stage prior to treatment.

4.0 APPLICATION DIRECTIONS

Place MetaLarv XRP at or before the beginning of the mosquito season. MetaLarv XRP can be applied prior to flooding when sites are dry. Under normal conditions, one application will last up to 105 days in drainage systems and up to 42 days in surface waters. Alternate wetting and drying will not reduce their effectiveness.

MetaLarv XRP is applied to areas that contain fish, other aquatic life, and plants. MetaLarv XRP is applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

APPLICATION SITES AND RATES

Mosquito Habitat

Suggested Range Rate*

Drainage/Drainage Systems:¹

Catch basins and storm drains

1 pouch/100 sq. ft.

Treatment Areas (For Use In):²

Ponds
Lagoons
Hollow trees and tree holes
Urns
Rain barrels
Livestock watering troughs/ponds/tanks
Irrigation ditches
Roadside ditches
Impounded wastewater associated with fruit and vegetable processing
Retention, detention and seepage ponds
Animal waste lagoons

Flood water
Standing water
Storm water retention areas
Birdbaths
Fountains
Flowerpots and planters
Snowmelt pools
Septic tanks
Abandoned swimming pools

Unused swimming pools or spas
Flooded basements
Pool covers
Gutters and drains
Wheelbarrows
Garbage cans and covers
Discarded tires
Water gardens

- 1 Treat on basis of surface area of potential mosquito breeding sites by placing one (1) MetaLarv XRP for up to 100 square feet of treatment area. Re-apply as needed (up to 105 days under typical environmental conditions).
2 Treat on basis of surface area of potential mosquito breeding sites by placing one (1) MetaLarv XRP for 100 square feet of treatment area. Re-apply as needed (up to 42 days under typical environmental conditions).
Apply directly to the larval source by placement.

5.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Offer foil pouch for recycling if available or dispose of empty pouch in the trash as long as the water soluble pouch is unbroken.

MetaLarv is a registered trademark of Valent BioSciences LLC.

© 2021 Valent BioSciences LLC



Registered and Manufactured by:
Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, IL 60048, U.S.A.

44-1011/R1 (Pkg. A52310035/R2A)

6.0 WARRANTY STATEMENT

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.



www.valentbiosciences.com/publichealth/ | 1-800-323-9597

Always read and follow label instructions.

© 2021 Valent BioSciences LLC. All rights reserved. Printed in the U.S.A.

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet**Synonyms:** VBC-60215, Metalaryv S-PT, Metalaryv XRP Mosquito Growth Regulator
Extended Release Pouch**EPA Reg No.:** 73049-475**Code Number:** 53725**List Number:** 05765**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Mosquito growth regulator**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Acute Aquatic Toxicity – Cat 1 (Daphnia/S-Methoprene).

2.2 Labeling Elements**Symbol(s)****Signal Word**

WARNING

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

Hazard Statement(s)

Harmful to aquatic life (Daphnia)

2.3 Precautionary Statement:**Prevention**

Avoid release to the environment

Response

Collect spillage

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
65733-16-6	S-Methoprene	4.25
Trade Secret	Other ingredients	95.75

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**INHALATION:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call

Metalary S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

911, and then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

No information on significant adverse effects

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with skin or inhalation of spillage or vapor. Ensure adequate ventilation. Evacuate personnel to safe areas. Wash face and hands thoroughly after handling.

6.2 Environmental Precautions

Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

sewers.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Store in a cool, dry place

Incompatibilities

None Known

7.3 Specific End Use(s)

Mosquito growth regulator

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation. Where adequate general ventilation is unavailable use process enclosure, local exhaust ventilation, or other engineering control.

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced respiratory protection is recommended. Wear gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C) or a NIOSH approved respirator with any N, P, R or HE filter). Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Rust & light grey-brown Solid Pellet	Odor:	Slight odor of mold
pH:	9.5 (1% w/v)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	0.72 g/ml
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	Not Determined
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 5.09 mg/L

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not irritating, (Category IV)

OCULAR IRRITATION: Minimally irritating, (Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: None

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated S-Methoprene Technical Powder)**Fish: LC₅₀ >4.26 mg/L (96-H, Zebra Fish); NOEC: 1.25 mg/LAlgae: EC₅₀ >2.264 mg/L (48-H)Invertebrates: EC₅₀ >0.22 mg/L (48-H) (Daphnia)**12.2 Persistence and Degradability**

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

Metalary S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS: There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Regulated
PROPER SHIPPING NAME: UN3077 Environmentally Hazardous Substance, Solid, N.O.S. (S-Methoprene), 9, III, Marine Pollutant
REMARKS: Single or inner packaging less 5 kg net (solids) exempted from Dangerous Goods regulations – see IATA Special Provision A197

IMDG STATUS: Regulated
PROPER SHIPPING NAME: UN3077 Environmentally Hazardous Substance, Solid, N.O.S. (S-Methoprene), 9, III, Marine Pollutant
REMARKS: Single or inner packaging less 5 kg net (solids) exempted from Dangerous Goods regulations – see IMDG 2.10.2.7

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt
CERCLA STATUS: Not regulated as hazardous
SARA STATUS: Acute: No Chronic: No Fire: No CDT: No
RCRA STATUS: Not regulated as hazardous

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number 73049-475

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**KEEP OUT OF REACH OF CHILDREN
CAUTION****PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet

SDS# VBC-0067 Revision 5

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

PESTICIDE STORAGE: Store any unused product in original container. Ensure that container is tightly closed then store in a cool, dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: 0
Flammability: 0
Instability: 0

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: General Update and add new brand name

APPROVAL DATE: 03/05/2020

SUPERSEDES DATE: 01/17/2020

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own

Metalaryv S-PT Mosquito Growth Regulator Spherical Pellet**SDS# VBC-0067 Revision 5**

ISSUED 03/05/2020

Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



Female mosquitoes recognize this as a site to lay their eggs. Mosquitoes entering the trap will be killed or die shortly thereafter.

TRAP-N-KILL®

MOSQUITO TRAP



PRECAUTIONARY STATEMENTS

Hazardous to humans and domestic animals.

CAUTION: Harmful if swallowed. After prolonged storage, a small amount of liquid may form on the strip. Avoid contact with eyes and mouth. Wash hands thoroughly with soap and water after handling toxicant strip. Contains an organophosphate that inhibits cholinesterase.

FIRST AID: ORGANOPHOSPHATE

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If swallowed, call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in eyes, hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present after 5 minutes, then continue rinsing eye. Call a physician immediately.

If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing call 911 or an ambulance. Then give artificial respiration preferably by mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. **NOTE TO PHYSICIAN:** Atropine sulfate is the antidote of choice.

ENVIRONMENTAL HAZARDS This product is toxic to fish, birds and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Mosquitoes breed in standing water found outdoors in containers, pots, planters, gutters, tires, tree-holes and low-laying areas. Remove water from these breeding sites before using the traps and monitor these areas regularly for best results. Traps should be placed in shaded areas out of reach of children and pets. Space traps 25 feet apart. Do not use on tables intended for serving food.



STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **Storage:** Store unopened container in a cool, dry place until ready for use. Do not store with food. **Pesticide Disposal:** Wastes resulting from the use of this product must be disposed on site or at an approved waste disposal facility. **Container Disposal:** Non-refillable container. Do not reuse this container. Wrap container and put in trash or offer for recycling if available.



TRAP-N-KILL®

MOSQUITO TRAP

Kills mosquitoes that may carry West Nile Virus, Dengue Fever, Yellow Fever, and Chikungunya

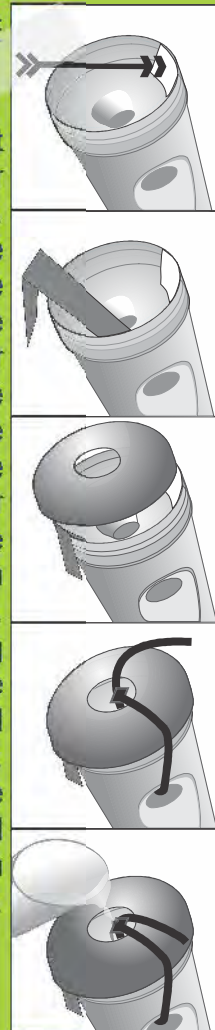


KEEP OUT OF REACH OF CHILDREN CAUTION
READ DIRECTIONS AND PRECAUTIONARY STATEMENTS BEFORE USE

TO INSTALL OR REPLACE PESTICIDE STRIP:

[See graphics]

Open canister and take out packet containing pesticide strip, red velour landing strip and black nylon cable tie. Open the enclosed packet and take out pesticide strip. Staple pesticide strip to the inside top rim of the canister (Step 1). Place red velour landing strip inside the canister so the strip reaches from the bottom of the canister up and over the rim of the canister (Step 2). Bend the red velour strip over the top edge. Thread zip tie through one side hole and up through the hole in the top of the lid (Step 3). Screw lid on to the canister making sure to secure red velour strip in place (Step 4). Slide zip tie around lid and tighten to itself to secure lid. (Step 5). Fill canister with water up to the side hole level. Place canister on ground or up to 3 feet above the ground in an area away from children and pets. Replace pesticide strip after 45 days.



FOR OUTDOOR USE ONLY

Mosquitoes are not just a nuisance, they may also spread diseases which are a serious threat to people and pets.

No zapping, No lotions, No sprays, No electrical cords. Easy to set up.

NOT recommended for indoor use. Place trap out of reach of children and pets.

Woodinville, WA 98072
EPA Est. No. 66433-WA-1
EPA Reg. No. 8730-50-66433
800-769-1043 info@springstar.net

Contains 1 strip (1" x 1")	Each Strip Contains	Net weight 0.05 oz
Active ingredients:	2,2 Dichlorovinyl dimethyl phosphate (DDVP)	10.00%
	Related compounds	0.75%
Other ingredients		89.25%
TOTAL		100.00%

The Mosquito Trap-N-Kill® is powered by the technologies of U.S. Pat. 8,205,378 U.S. Patents: 6,389,740, 6,185,861, 5,983,557

© SpringStar Inc. 2014
MADE IN USA
Model TK71015
Batch No. 215307



SpringStar Inc. Safety Data Sheet

Section I: IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Mosquito Trap-N-Kill®
Mosquito Trap-N-Kill® Refill Kit
Target Insect: various
Toxicant Strip for Outdoor insect traps

Recommended use: Use in dry outdoor insect traps to kill target insect

Item Number: TK71015, TK 71016

Date Issued: April 4, 2014; Revised Jan. 25, 2018

COMPANY: SpringStar Inc.
PO Box 2622
Woodinville, WA 98072
425-487-6011

For an emergency or more information call 717-764-1192 or
the National Pesticide Information, 800-858-7378

SECTION II. HAZARDOUS MATERIAL IDENTIFICATION

Hazardous Component	Wt %	Hazard	Signal Word
DDVP	10%	Poison	Warning



Hazard Statement

Acute Toxicity, oral determined via Actue Toxic estimates to be Category 4

Acute Toxicity, dermal – LD50 >5050 mg/kg, Category 5

DDVP is poisonous if swallowed, inhaled or absorbed through skin and eyes. Rapidly absorbed through skin. Repeated inhalation or skin contact may without symptoms, progressively increases susceptibility to DDVP poisoning.

Toxic to fish, birds and other wildlife. Do not contaminate bodies of water.

Precautionary Statements

Potential Health Effects

ROUTES OF ENTRY: Ingestion, inhalation, and absorption through the eye or skin are all possible routes of entry for this active ingredient. Exposure by any of the routes may cause acute cholinesterase depression. Severe cholinesterase depression may be fatal.

SIGNS OF ACUTE OVEREXPOSURE: Acute Cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive seating salivation and tearing,

constricted pupils, blurred vision, tightness in chest weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. SIGNS OF CHRONIC OVEREXPOSURE: Repeated exposures to small doses of DDVP and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

CARCINOGENICITY: EPA under its 199 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP as having “suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential”. IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.

SECTION III. COMPOSITION & INFORMATION ON INGREDIENTS

ACTIVE

COMMON NAME: DDVP, Dichlorvos
CHEMICAL NAME: Dimethyl 2,2-vinylphosphate
CHEMICAL FAMILY of active ingredient: Organophosphate ester
C.A.S. NUMBER: 62-73-7
FORMULA: C₄H₇CL₂O₄P
CONSTRUCTION: Laminated PVC controlled release dispenser
EPA Reg. No. 8730-50-66433,
Canada Health PCP# 21222

SECTION IV. FIRST AID MEASURES

FIRST AID: ORGANOPHOSPHATE

IF SWALLOWED

- Call a poison control center or doctor immediately for treatment advice
- Have the person sip a glass of water if able to swallow
- Do not induce vomiting unless told to do so by the poison control center or doctor
- Do not give anything by mouth to an unconscious person

IF IN EYES

- Hold eye open and rinse slowly and gently with water for 15-20 minutes
- Remove contact lenses if present after the first 5 minutes then continue rinsing eye
- Call a physician immediately

IF ON SKIN OR CLOTHING

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes
- Call a poison control center or doctor for treatment advice

IF INHALED

- Move person to fresh air
- If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably by mouth –to-mouth, if possible
- Call a poison control center or doctor for further treatment advice

Have the product container or label with you when calling a poison control center or doctor or going for treatment. NOTE TO PHYSICIAN: Atropine sulfate is the antidote of choice. You may contact the National Pesticide Telecommunications Network at 1-800-858-7378 for emergency medical treatment information. Hours of operation are seven days a week, 6:30 am to 4:30 pm PST

SECTION V. FIRE HAZARD INFORMATION

FLASH POINT: N/A

FLAMMABLE LIMITS in air: N/A

EXTINGUISHING MEDIA: Dry chemical, foam, water fog or spray Carbon dioxide, foam

SPECIAL FIRE FIGHTING PROCEDURES: If involved in fire, use air-supplied equipment. Do not inhale fumes. Wear full protective equipment and NIOSH approved pressure demand, self contained breathing apparatus UNUSUAL FIRE AND EXPLOSION HAZARDS: When burned the hazardous decomposition products that will result because of incomplete combustion include carbon monoxide, other unidentified products of hydrocarbon degradation, Nox, low level cyanides and hydrogen chloride.

SECTION VI. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Individual strips that are pouched, pick up and place in a sealed container. If strips are unpouched, and decontamination is warranted, decontaminate the area with dilute ammonia (less than 5% solution) and detergent. Flush the area with water. Absorb the rinse water using an absorbent such as, but not limited to clay, sawdust, straw or kitty litter and sweep into an open drum. Close the drum and dispose as hazardous waste. Do not reuse empty containers. Check with state and local authorities for disposal options.

SECTION VII. HANDLING AND STORAGE

GENERAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in sealed containers in a cool, dry place and away from open flames. To maintain product integrity protect from high temperatures. Keep container closed. Launder contaminated clothing before use. Wear protective equipment described above if exposure conditions warrant. Do not contaminate water sources, food or feed.

SECTION VIII. PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Usually none required.

EYE PROTECTION: Usually none required

VENTILATION: Good general ventilation should be sufficient.

PROTECTIVE GLOVES: None required but vinyl, latex or rubber gloves recommended for continuous handling.

OTHER PROTECTIVE EQUIPMENT: None under normal usage.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: 1" x 4" red strip, older strips may have a shiny wet appearance – use gloves to handle strip.

UPPER/LOWER FLAMMABILITY: N/A

ODOR DESCRIPTION: Mild

VAPOR DENSITY (AIR = 1): N/A

pH: N/A
BULK DENSITY: N/A
MELTING /FREEZING POINT: 3000F MELT
SOLUBILITY IN WATER: Insoluble
BOILING POINT: N/A
FLASH POINT: N/A
EVAPORATION RATE: N/A
VAPOR PRESSURE (200C, mm HG): Not determined
VAPOR DENSITY: N/A
RELATIVE DENSITY: N/A
PARTITION COEFFICIENT: NOT APPLICABLE
AUTO- IGNITION: NOT APPLICABLE
DECOMPOSITION TEMPERATURE: NOT AVAILABLE
VISCOSITY: NOT APPLICABLE
PERCENT ACTIVE IN PRODUCT: 10.0%

SECTION X: STABILITY AND REACTIVITY

REACTIVITY: NONE KNOWN
PRODUCT STABILITY: UNSTABLE STABLE X
HAZARDOUS POLYMERIZATION: May Occur May Not Occur X
CONDITIONS TO AVOID: Do not store near easily ignited chemicals and materials or open flames.
MATERIAL TO AVOID: Strong oxidizing agents HAZARDOUS DECOMPOSITION PRODUCTS: On combustion, the polymeric dispensers may produce CO, CO₂, HCL and CL₂.

SECTION XI TOXICOLOGICAL INFORMATION

ACTIVE INGREDIENT ONLY

INGESTION:	Oral LD50 (rat)	80/56 mg/kg (male/female)
INHALATION:	LC50 (rat)	>198 mg/m ³ (4 hr, head only, vapor)
DERMAL:	Skin LD 50 (rabbit)	205 mg/kg
IRRITATION:	Eye irritation:	Irritant
	Skin irritation	Irritant
SENSITIZATION:	Skin sensitization:	Possible Sensitizer (Guinea pig)

TERATOGENCITY: No evidence of teratogenicity in laboratory animals

MUTAGENCITY: No clear evidence of in vivo mutagenicity activity in mammalian assay systems.

CARCINOGENICITY: Two laboratory studies have shown a low incidence of fore stomach tumors in the mouse and mononuclear cell leukemia in the F344 rat. EPA under its 1999 proposed evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential". IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (group 2B).

CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.

REPRODUCTIVE TOXICITY: Reproductive effects have only been seen at a dose level which produced a generalized toxicity in the rat.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: No data are available.

VAPORTAPE II END PRODUCT:

INGESTION	ORAL LD50	Acute toxic estimate Category 4
INHALATION	LC50 STUDY	NOT AVAILABLE ON STRIP
DERMAL :	SKIN LD 50 (Rats)	>5050 mg/kg
IRRITATION :	SKIN STUDY	NOT AVAILABLE ON STRIP
	EYES STUDY	NOT AVAILABLE ON STRIP
SENSITIZATION :	SKIN SENSITIZATION STUDY	NOT AVAILABLE ON STRIP

SECTION XII: ECOLOGICAL INFORMATION

No adverse effects have been reported.
 The ecotoxicological effects of this product have not been evaluated.
 Chemical Fate Information No data available.

SECTION XIII: DISPOSAL CONSIDERATIONS

STORAGE: Store in a cool dry place.
 PESTICIDE DISPOSAL: Do not reuse empty pouch or strip. Wrap strip in paper and discard in trash
 CONTAINER DISPOSAL: Do not reuse empty pouch. Discard in trash.

SECTION XIV: TRANSPORTATION INFORMATION

Ground Transport (DOT)
 Class 60

SECTION XV: REGULATORY INFORMATION

US FEDERAL REGULATIONS: This product is registered under EPA/FIFRA Regulations and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals Following is the hazard information as required on the pesticide label:

Signal word: CAUTION

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions.

CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. POISON

SARA TITLE III DATA
 DDVP

Section 311 & 312 Hazard Categories	
Immediate Health Hazard	Yes
Delayed Health Hazard	Yes
Fire Hazard:	No

Reactive Hazard No

Sudden Pressure Release Hazard No

Section 302 Extremely Hazardous substances: DDVP (Dichlorvos, 62-73-7)

Section 313 Toxic Chemicals: DDVP (Dichlorvos, 62-73-7)

OSHA Classification: DDVP in the Vaportape formulation is hazardous

TSCA Status: Not listed on TSCA

CERCLA: DDVP subject to reporting requirements

RCRA: DDVP considered hazardous

Clean Air Act Ozone Depleting Chemical Substances: None

Clean Air Act Hazardous Air Pollutants: DDVP

Volatile Organic Compounds: None

USDA Status: EPA Reg. No. 8730-50-66433

This product is not intended for use on food products

SECTION XVI OTHER INFORMATION

MSDS NUMBER E100311

DATE ISSUED: April 4, 2014

BY: M. Banfield

DATE REVISED: Jan. 25, 2018

TITLE: Product Development Manager

WARRANTY AND LIMITATION OF DAMAGES

SpringStar warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use to the extent allowed by state law. SpringStar neither makes, nor authorizes any agent or representative to make any other warranty of fitness or of merchantability, guarantee or representation, expressed or implied concerning this material except as stated above. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to SpringStar. If this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable as determined by SpringStar, refund of the purchase price. To the extent allowable by law, SpringStar's maximum liability for breach of this warranty shall not exceed the purchase price of this product. In no case will SpringStar be liable for incidental, consequential or special damages resulting from handling, storage, use, misuse or abuse of this product.



NATULAR[®] 2EC

Mosquito Larvicide

Liquid Emulsifiable Concentrate. To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	20.6%
Other Ingredients:	79.4%
Total	100.0%

U.S. Patent No. 5,362,634 and 5,496,931

Contains 2 lb of active ingredient per gallon.

Group	5	INSECTICIDE
-------	---	-------------

KEEP OUT OF REACH OF CHILDREN

CAUTION

First Aid

If in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing. Wear protective eyewear. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in water where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

This product is toxic to bees exposed to treatment and for 3 hours following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

General Information

NATULAR 2EC is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. NATULAR 2EC may be applied with suitable ground or aerial application equipment.

General Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR 2EC is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

NATULAR 2EC contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 20 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Mixing

NATULAR 2EC should be diluted with water. Shake well before using as NATULAR 2EC may separate on standing and must be thoroughly agitated prior to dilution. Partially fill spray tank with water. Start agitation and add the required amount of NATULAR 2EC. Continue agitation while mixing and filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source. Do not mix more NATULAR 2EC than can be used in a single application.

Mixing Formula:

If an application rate of X fl oz of NATULAR 2EC per acre is desired, the spray equipment is calibrated to deliver Y gallons per acre, and a total of Z acres is being treated, the following formula would apply:

$X \text{ fl oz of NATULAR 2EC per acre} \times Z \text{ acres to be treated} = W \text{ total fl oz of NATULAR 2EC required}$

$Y \text{ gallons per acre} \times Z \text{ acres to be treated} = V \text{ total volume of water required}$

To treat Z acres, mix W fl oz of NATULAR 2EC in V gallons of water and apply at a rate of Y gallons per acre.

For example, to treat 10 acres at 2 fl oz of NATULAR 2EC per acre with equipment calibrated at 2 gallons per acre, mix 20 fl oz of NATULAR 2EC into 20 gallons of water and apply at a rate of 2 gallons of finished spray per acre. The addition of NATULAR 2EC to the total volume of water will not significantly affect the total targeted volume of spray mixture.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making the decision to apply this product.

The following spray drift management requirements must be followed to avoid off-target drift movement from aerial applications.

1. The boom width must not exceed 75% of the wingspan or 90% of the rotor blade. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used.
2. Nozzles must always point backward, parallel with the air stream, and never be pointed downward more than 45 degrees.
3. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
4. Do not apply when wind speed favors drift beyond the treatment area.

Where states have more stringent regulations, they must be observed.

AL0595

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. The following recommendations are provided for ground and aerial application of NATULAR 2EC.

Ground Application

Use conventional ground application equipment with enough water to provide uniform coverage of the target area. Use hand-pump, airblast, mist blower, etc. spray equipment. Apply at the designated rate for the targeted site.

Spot Treatment

Apply NATULAR 2EC as a spot treatment to areas where mosquitoes are breeding at rates appropriate for the treatment site habitat and conditions.

Aerial Application

NATULAR 2EC may be aerially applied either undiluted or diluted with water through fixed wing aircraft or helicopter with either conventional boom and nozzle systems or rotary atomizers. Use a nozzle configuration that produces a droplet size distribution that ensures droplet deposition in the targeted area. Apply at the designated rates for the targeted site.

Application Sites and Rates

The rates listed are typical for efficaciously killing mosquito and midge larvae in the listed habitat sites. Within this range, use lower rates when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled rates. NATULAR 2EC may be applied at rates up to 6.4 fl oz per acre in waters high in organic content (such as polluted water, sewage lagoons, animal waste lagoons, and waters with high concentrations of leaf litter or other organic debris), deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates. Do not re-apply within 7 days of the initial application unless monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

Do not apply this product to commercial fish farm ponds, fisheries or other waters used for aquaculture operations.

For killing mosquito larvae species in the following non-crop sites:

Non-Crop Site	NATULAR 2EC fl oz/acre (lb ai/acre)
Temporary Standing Water Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water	1.1 - 2 (0.018 - 0.033)
Other Freshwater Sites Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	
Freshwater Swamps and Marshes Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation	2.8 (0.045)
Marine/Coastal Areas Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	
Stormwater/Drainage Systems Storm sewers, catch basins, drainage ditches, and similar areas	2 - 2.8 (0.033 - 0.045)
Wastewater Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas	
Dormant Rice Fields Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle)	1.1 - 2 (0.018 - 0.033)
Natural and Artificial Containers Tree holes, bromeliads, leaf axils, and other similar natural water holding containers.	1.1 - 2.8 (0.018 - 0.045)
Cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites.	
Landfill containers, salvage yards, abandoned vehicles	
Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	

Agricultural/Crop sites where mosquito breeding occurs:

Apply NATULAR 2EC at the rate of 1.1 to 2.8 fl.oz./acre in standing water within agricultural/crop sites where mosquito breeding occurs: pastures/hay fields, rangelands, orchards, vineyards and citrus groves. Do not apply to waters intended for irrigation.

Blending Instructions and Directions for Use as a Custom Blend on Sand and application by standard ground and aerial granular dispersal equipment. NATULAR 2EC may be blended on site following the preparation instructions below and applied as a sand mixture using standard

granular dispersal equipment. Apply at a rate of 8.5 to 12 pounds of the blended sand per acre to areas with dense vegetation or heavy canopy or to other areas where a granular formulation will aid in ensuring the active ingredient reaches the target water and is released from the sand.

Blending Instructions The following materials are required to prepare a 100-lb batch of NATULAR 2EC blended sand:

96.5 lbs	Washed, dry sand (20-45 mesh)	Tumbling mixer
23.8 fl.oz.	Natular 2EC	Spray apparatus (such as a hand pump or other low pressure sprayer)
12.3 fl.oz.	Water	
0.9 lbs	HiSil 233 (silicon dioxide)	

HiSil 233 is added to achieve a dry, free-flowing mixture. The amount required for on-site blending may vary depending on the particle size distribution and moisture content on the sand.

1. Measure the time required for a level funnel of (unblended) sand to empty
2. Load the sand into a tumbling mixer such as a cement mixer
3. Shake or agitate NATULAR 2EC well
4. In a separate mix tank, add NATULAR 2EC to water and blend well
5. While the mixer is rotating, spray the mixed NATULAR 2EC solution onto the tumbling sand until all liquid is used
6. Mix (tumble) the sand until sand is uniformly wet (usually five to ten minutes). Turn off mixer.
7. Dig a hole in the center of the sand, and add HiSil. Cover the mixture with sand from the tumbler to minimize dusting. Start the mixer and tumble until free flowing (approximately 5 minutes).
8. Measure the time required for a level funnel of NATULAR 2EC blended sand to empty. If the flow rate is significantly slower than measured in Step No. 1, repeat step 6, adding incrementally more HiSil. If it flows at a faster rate or is excessively dusty, reduce the amount of HiSil in subsequent batches.

Do not allow NATULAR 2EC blended granules to drift.

Store unused NATULAR 2EC blended sand in a covered, secure, dry storage area away from wind and precipitation. Store in containers only (e.g., tumbler, hopper, tote, drum). Do not store for long periods. Avoid blending more material than may be used in 72 hours.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Warranty

To the extent consistent with applicable law CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

MANUFACTURED BY:
Clarke Mosquito Control Products, Inc.
159 North Garden Avenue
Roselle, Illinois 60172
U.S.A.

For more information call 1-800-323-5727

Natular® is a Trademark of Clarke Mosquito Control Products, Inc.

EPA Reg. No.: 8329-82

EPA Est. No.: _____

Lot No.:

Available Container Size: 2.5 gal



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 1 of 7

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular® 2EC

EPA Registration Number: 8329-82

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4

Pictogram:



Signal Word: Warning

Hazard statements: Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing vapors, mists or spray. Use only outdoors or in a well-ventilated area.

RESPONSE: If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center or doctor if you feel unwell.

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 2 of 7

Substance Name	CAS No.	Concentration % w/w
Spinosad:		
Spinosyn A	131929-60-7	20.6
Spinosyn D	131929-63-0	
Natural Oil of Wintergreen	68917-75-9	< 75 *

* The exact percentage (concentration) of composition has been withheld as trade secret.

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

An allergic skin reaction may occur in individuals with a sensitivity to Wintergreen oil.

Short term inhalation exposure may cause temporary irritation to the nose, throat, and upper respiratory tract. Prolonged exposure may result in mild salicylate intoxication which can cause symptoms including headache, dizziness, ringing in the ears, difficulty in hearing, dimness of vision, mental confusion, lassitude, sweating, thirst, hyperventilation, nausea, vomiting, and occasionally diarrhea.

4.3 Indication of Immediate Medical Attention and Special Treatment

Exposure through ingestion may result in mild to severe salicylate intoxication. Symptoms can range from those stated above to more pronounced CNS disturbances (including generalized convulsions and coma), skin eruptions, and marked alterations in acid-base balance.

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For additional medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NOx.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.



SAFETY DATA SHEET

NATULAR[®] 2EC

Effective Date: 12 October 2017

v.02

Page 3 of 7

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Absorb with sand or other non-combustible material while using appropriate personal protection equipment. Collect spilled material in appropriate container for disposal.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid inhalation of vapors from product. Do not take internally.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³
Natural Oil of Wintergreen	68917-75-9			None established

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as nitrile or neoprene.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance: Liquid

Color: Amber/Brown



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 4 of 7

Odor:	Minty scent
Odor Threshold:	Not Available
pH:	7.5
Melting Point:	Not Applicable
Freezing Point:	Not Determined
Initial Boiling Point:	Not Determined
Flash Point:	99°C
Evaporation Rate:	Not Determined
Flammability:	Not Determined
Explosion limits [U/L]:	Not Determined
Vapor Pressure:	Not Determined
Vapor Density:	1 mmHg at 20°C
Relative Density:	9.68 lb/gal
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	17.32 @ 20°C, 8.59 @ 40°C
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat. Avoid heat, flames, sparks and other sources of ignition.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation

Inhalation: Short term exposure may cause temporary irritation to the nose, throat, and upper respiratory tract.

Dermal: An allergic skin reaction may occur in individuals with a sensitivity to Wintergreen oil.



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 5 of 7

11.2 Information on Toxicological Effects

Acute Toxicity/Effects*

Oral, Rat LD ₅₀ :	> 2,000 mg/kg-bw
Dermal, Rat LD ₅₀ :	> 4,000 mg/kg-bw
Inhalation, Rat LC ₅₀ :	> 2.01 mg/L
Skin Corrosion/Irritation:	Natular® 2EC is not a skin irritant
Serious Eye Damage/Irritation:	Mild (transient) eye irritation may occur from direct exposure of the product and/or in the eyes.
Skin Sensitization:	Natular® 2EC is not a skin sensitizer
STOT – Single exposure	No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

Chronic Toxicity/Effects

Germ Cell Mutagenicity	This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Spinosad is not mutagenic.
Carcinogenicity:	This product does not contain any carcinogens as listed by OSHA, IARC, or NTP. Spinosad is not carcinogenic.
Reproductive Effects:	No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity. For Spinosad: in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
STOT – Repeated Exposure:	In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.
Additional Information:	<p>Prolonged exposure may result in mild salicylate intoxication which can cause symptoms including headache, dizziness, ringing in the ears, difficulty in hearing, dimness of vision, mental confusion, lassitude, sweating, thirst, hyperventilation, nausea, vomiting, and occasionally diarrhea.</p> <p>Severe salicylate intoxication is characterized by more pronounced CNS disturbances (including generalized convulsions and coma), skin eruptions, and marked alterations in acid-base balance.</p>

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish:	96-hr Acute LC ₅₀ 5.0 mg/L, Common Carp (<i>Cyprinus carpio</i>) 96-hr Acute LC ₅₀ 5.9 mg/L, Bluegill Sunfish (<i>Lepomis macrochirus</i>) 96-hr Acute LC ₅₀ 30 mg/L, Rainbow Trout (<i>Oncorhynchus mykiss</i>)
Toxicity to Aquatic Invertebrates:	48-hr Acute EC ₅₀ 1.5-14.0 mg/L, Water Flea (<i>Daphnia magna</i>) 48-hr LC ₅₀ > 7.9 mg/L, Mysid Shrimp (<i>Americamysis bahia</i>)
Toxicity to Aquatic Plants:	5-d EC ₅₀ 8.1 mg/L, Blue Green Algae (<i>Anabaena flos-aquae</i>)



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 6 of 7

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K _{ow} :	Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)
Bioaccumulation:	Bioconcentration potential is low (BCF < 100)
Bioconcentration Factor:	Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)
Mobility in Soil:	Potential for mobility in soil is low (K _{oc} between 500 and 2000)
Partition Coefficient, K _{oc} :	701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)

Not regulated (Bulk and Non-Bulk Quantities)

14.2 IMDG (Vessel)

UN Number:	3082
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S.
Technical Name:	Spinosad
Marine Pollutant:	Yes

14.3 ICAO/IATA (Air transport)

UN Number:	3082
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S.
Technical Name:	Spinosad
Environmental Hazard:	Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION
KEEP OUT OF REACH OF CHILDREN

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.



SAFETY DATA SHEET

NATULAR® 2EC

Effective Date: 12 October 2017

v.02

Page 7 of 7

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1800-214-7753 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS. Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing. Wear protective eyewear. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

None

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NATULAR® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

End of document



NATULAR® DT

Mosquito Larvicide / For Outdoor Use

- Kills mosquito larvae in standing water where adult mosquitoes breed.
- Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.
- **For use in garden ponds, bird baths, fish ponds, water gardens, rain barrels, fountains, ornamental pools, roof gutters, and standing water.**
- Can be applied to sites that contain Fish and Plants.
- Keeps working for 60 days.

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	7.48%
Other Ingredients	92.52%
Total	100.00%

Contains 0.1 gram Spinosad per extended-release tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

U.S. Patent No. 5,362,634 and 5,496,931

Keep Out Of Reach Of Children

CAUTION

First Aid

If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
--------------------	--

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear (such as safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in waters where this pesticide is used.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

Through a single mosquito bite, adult mosquitoes can pose a serious threat to people and animals by transmitting West Nile virus and other viruses that can cause encephalitis.

Emptying or discarding small containers that are holding water will ensure the best results. In instances where small containers cannot be emptied or discarded and for other standing water around the home, using NATULAR® DT is a simple and effective way to kill developing mosquito larvae before they become breeding and biting adults.

NATULAR® DT is a uniquely engineered, patented bi-layer tablet for use in mosquito breeding sites. The top, white, effervescent layer quickly releases a dose of active ingredient that provides rapid control of existing mosquito larvae. The bottom, tan layer provides an extended, slow release of active ingredient that

continually controls mosquito larvae in the water for up to 60 days. NATULAR® DT's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism.

Application Directions

NATULAR® DT can be used in artificial containers and natural standing-water sites around your home to control the mosquito larvae of breeding mosquitoes. NATULAR® DT can be applied as a preventative action (pre-flood treatment) before sites fill with water. NATULAR® DT may also be used in sites that intermittently fill with water; the NATULAR® DT's slow release layer will stop working when dry, and begin working again when re-wetted. NATULAR® DT will control mosquito larvae for up to 60 days when immersed in water. Reapply after as needed.

Restrictions

Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

In New York State, this product is only for use in containerized sites with no outflow to the natural environment.

Application Sites

Bird Baths, Ornamental Fish Ponds, Garden Ponds, Water Gardens, Ornamental Fountains, Ornamental Pools or Ponds, Flower Pots or Planters, Rain Barrels, Urns, Tree Holes, Pool Covers, Unused or Abandoned Swimming Pools, Roof Gutters, Roof Top Catchments, Storage Tanks, Drums, Buckets, Wheelbarrows, Garbage Cans, Other Water-Holding Receptacles, Floor Drains, Old Tires, Rock Holes, Pot Holes, Tire Tracks, Other Natural and Man-Made Depressions.

Application Rates

For shallow standing water holding areas (less than 6 inches deep), 1 tablet treats up to 25 square feet of surface area. For containers or water holding receptacles holding more than 6 inches of water, apply 1 tablet to treat up to 50 gallons (192 liters) per container.

Storage and Disposal

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage: Store in a cool dry place in original container only.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Warranty: To the extent consistent with applicable law seller makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Produced For:

Clarke Mosquito Control Products, Inc.
159 N. Garden Ave
Roselle, IL 60172 USA
1-800-323-5727

EPA Reg. No.: 8329-602
EPA Est. No. Marked on Container
Lot No.: Marked on Container

Net Weight: 16.2 g
Net Contents: 12 Tablets
Tablet Weight: 1.35g



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 1 of 6

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular™ DT

EPA Registration Number: 8329-602

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Not Classified Product does not meet the classification criteria for acute, delayed, or physical hazard according to the 2012 OSHA HCS

Hazard Symbol(s): None

Signal Word: None

Hazard statements: None

Precautionary Statements: None

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Spinosad:		7.48
Spinosyn A	131929-60-7	
Spinosyn D	131929-63-0	
Citric Acid, anhydrous	77-92-9	< 5 *

* The exact percentage (concentration) of composition has been withheld as trade secret.

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 2 of 6

4.1 Description of First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NOx.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Collect all material with shovel, other instrument, or by hand while using appropriate personal protection equipment, and place in closable marked containers.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 3 of 6

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance: Solid, bi-layer tablet
Color: Tan/white
Odor: Earthy scent
Odor Threshold: Not Available
pH: 6.67
Melting Point: Not Determined
Freezing Point: Not Applicable
Initial Boiling Point: Not Applicable
Flash Point: Not Determined
Evaporation Rate: Not Applicable
Flammability: Not Determined
Explosion limits [U/L]: Not Applicable
Vapor Pressure: Not Applicable
Vapor Density: Not Applicable
Relative Density: 1.88 g/mL
Solubility: Not Determined
Partition Coefficient: Not Determined
Auto-Ignition Temperature: Not Determined
Viscosity: Not Applicable
Decomposition Temperature: Not Available
Explosive Properties: Not Available



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 4 of 6

Oxidizing Properties: Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

11.2 Information on Toxicological Effects

Acute Toxicity

Oral, Rat LD₅₀ : > 2,000 mg/kg-bw

Dermal, Rat LD₅₀ : > 4,000 mg/kg-bw

Inhalation, Rat LC₅₀ : > 5.0 g/m³

Skin Corrosion/Irritation: Not a skin irritant

Serious Eye Damage/Irritation: Slight irritant

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

Chronic Toxicity/Effects

Germ Cell Mutagenicity: Not mutagenic

Carcinogenicity: Not carcinogenic. All components of this product are not classified as a carcinogen by OSHA, IARC, NTP, or Prop. 65. Spinosad is not carcinogenic.

Reproductive Effects: No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity. For Spinosad: in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 5 of 6

STOT – Repeated Exposure: In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish: 96-hr Acute LC₅₀ 5.0 mg/L, Common Carp (*Cyprinus carpio*)
96-hr Acute LC₅₀ 5.9 mg/L, Bluegill Sunfish (*Lepomis macrochirus*)
96-hr Acute LC₅₀ 30 mg/L, Rainbow Trout (*Oncorhynchus mykiss*)

Toxicity to Aquatic Invertebrates: 48-hr Acute EC₅₀ 1.5-14.0 mg/L, Water Flea (*Daphnia magna*)
48-hr LC₅₀ > 7.9 mg/L, Mysid Shrimp (*Americamysis bahia*)

Toxicity to Aquatic Plants: 5-d EC₅₀ 8.1 mg/L, Blue Green Algae (*Anabaena flos-aquae*)

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K_{ow}: Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)

Bioaccumulation: Bioconcentration potential is low (BCF < 100)

Bioconcentration Factor: Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)

Mobility in Soil: Potential for mobility in soil is low (K_{oc} between 500 and 2000)

Partition Coefficient, K_{oc}: 701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)

Not regulated (Bulk and Non-Bulk Quantities)

14.2 IMDG (Vessel)

UN Number: 3077

Hazard Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)

Marine Pollutant: Yes

14.3 ICAO/IATA (Air transport)

UN Number: 3077

Hazard Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S.(Spinosad)



SAFETY DATA SHEET

NATULAR™ DT

Effective Date: 1 June 2015

v.01

Page 6 of 6

Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

Keep Out Of Reach Of Children.

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

None

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

™ NATULAR is a Trademark of Clarke Mosquito Control Products, Inc.

End of document



NATULAR® G30

Mosquito Larvicide / Extended Release Granule

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient (dry weight basis):

Spinosad (a mixture of Spinosyn A and Spinosyn D)	2.5%
Other Ingredients	97.5%
Total	100.0%

U.S. Patent No. 5,362,634 and 5,496,931

Natular® G30 is a 2.5% extended release granule.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid

If swallowed:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

Natular® G30 is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular® G30 releases effective levels of spinosad for up to 30 days under typical environmental conditions. Natular® G30 may be applied with ground or aerial equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular® G30 is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

Natular® G30 contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticides is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or Clarke representative.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 5 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply Natular® G30 prior to flooding as a pre-hatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions.

Ground Application

Use conventional ground application equipment that provides even coverage at labeled rates.

Aerial Application

Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 5 to 20 lb per acre may be used to apply Natular® G30. Aerial application equipment should be carefully calibrated before use to be sure it is working properly and delivering a uniform distribution pattern. Avoid flight path overlaps while dispensing granules. Do not exceed labeled limits.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making application decisions.

Application Sites and Rates

Apply Natular® G30 at rates (see table) for the targeted treatment site. Within these rate ranges apply at a rate appropriate to site habitat and conditions at the time of application. Use lower labeled rate when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. Within the labeled rate range, use higher rates when water is deep, vegetation and/or pollution are high, and mosquito populations are high in number.

Natular® G30 may be applied at rates up to 20 lb per acre in waters high in organic content, deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates.

Reapply after 30 days, if needed for extended control in continuously flooded habitat. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

Treatment Area	Natular® G30
<p>Temporary Standing Water: Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water.</p> <p>Other Freshwater Sites: Natural and manmade aquatic sites; edges of lakes, ponds, canals, stream eddies, creek edges, and detention ponds.</p> <p>Dormant Rice Fields: Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle).</p> <p>Freshwater Swamps and Marshes: Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation.</p> <p>Marine/Coastal Areas: Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas.</p>	<p>Apply 5 to 12 lbs per acre (5.6 to 13.5 kg per hectare).</p> <p>Rate is equivalent to 5 to 12 g per 100 sq. ft. of water.</p>
<p>Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas.</p> <p>Wastewater: Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas.</p>	<p>Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare).</p> <p>Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.</p>
<p>Natural and Artificial Containers: Tree holes, bromeliads, leaf axils, and other similar natural water holding containers; cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites; landfill containers, salvage yards, abandoned vehicles.</p> <p>Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.</p>	<p>Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare).</p> <p>Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.</p> <p>For small to medium size containers, apply 0.15 g of Natular G30 per 10-25 gallons of water.</p> <p>For very small containers, apply a pinch of Natular G30 (about 0.02 g) per 5 liters (1.3 gallons) of water. This is approximately 8-10 granules per 5 liters of water.</p>
<p>Agricultural/Crop Sites Where Mosquito Breeding Occurs Apply Natular® G30 to standing water within agricultural/crop sites where mosquito breeding occurs to kill mosquito larvae species, including: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.</p>	<p>Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare).</p> <p>Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.</p>

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool dry place in original container only. Keep away from moisture.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities.

Container Handling for Rigid Refillable Tote: Refillable container. Refill this container with granular spinosad pesticide formulation only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment. Use a sprayer with water to quickly and completely rinse the interior of the container. Ensure the top, bottom, and all sides are rinsed. A high pressure sprayer with a rinsing nozzle could provide a thorough rinse of the interior. Drain and collect rinsate from the container into a collection system for later disposal. Drain the container dry so no water remains. Return to point of sale. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

Warranty: To the extent consistent with applicable law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Trademark of Clarke Mosquito Control Products, Inc.

Manufactured For:

CLARKE MOSQUITO CONTROL PRODUCTS, INC.

159 North Garden Avenue

Roselle, IL 60172, U.S.A.

1-800-323-5727

EPA Reg. No.: 8329-83

EPA Est. No.: 8329-IL-03

Net Contents: _____

Lot: _____



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 1 of 8

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular® G30

EPA Registration Number: 8329-83

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4

Pictogram:



Signal Word: Warning

Hazard statements: Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing dust. Use only outdoors or in a well-ventilated area.

RESPONSE: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 2 of 8

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Spinosad:		2.50
Spinosyn A	131929-60-7	
Spinosyn D	131929-63-0	
Sand:		68.00
Quartz	14808-60-7	≤ 67.66
Aluminum Oxide	1344-28-1	≤ 12.92
Calcium Oxide	1305-78-8	≤ 0.748
Titanium Oxide	13463-67-7	≤ 0.476

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

If Inhaled: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Inhalation: This product may release nuisance dust in handling or use. Exposure to dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract. Acute exposure to dust is not likely to be hazardous.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NO_x.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 3 of 8

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Collect all material with shovel or other instrument while using appropriate personal protection equipment, and place in closable marked containers. Use non-reactive absorbent to absorb small spills of rinsate and collect for disposal

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with eyes and inhalation of dusts from product.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³
Sand	14808-60-7	ACGIH	TWA	0.025 mg/m ³ respirable fraction
		NIOSH	TWA	0.05 mg/m ³ respirable dust
Quartz	14808-60-7	ACGIH	TWA	0.025 mg/m ³ respirable fraction
		NIOSH	TWA	0.05 mg/m ³ respirable dust
		OSHA	TWA	Mineral Dust (30) / (%SiO ₂ + 2) mg/m ³ Respirable Dust (10) / (%SiO ₂ + 2) mg/m ³
Aluminum Oxide	1344-28-1	ACGIH	TWA	1 mg/m ³ respirable fraction <i>as aluminum insoluble compounds</i>
		OSHA	TWA	15 mg/m ³ total dust 5 mg/m ³ respirable fraction
Calcium Oxide	1305-78-8	ACGIH	TWA	2 mg/m ³
		NIOSH	TWA	2 mg/m ³
		OSHA	TWA	5 mg/m ³
Titanium Oxide	13463-67-7	ACGIH	TWA	10 mg/m ³
		OSHA	TWA	15 mg/m ³ total dust



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 4 of 8

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: Natular® G30 as formulated is not expected to form appreciable respirable dust from sand from use or attrition. A respirator is not required for normal use of this product. If needed or preferred, use suitable respiratory equipment such as a NIOSH standard N-95 respirator or dust mask.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Granule
Color:	Tan/white
Odor:	Earthy scent
Odor Threshold:	Not Available
pH:	6.92
Melting Point:	Not Determined
Freezing Point:	Not Applicable
Initial Boiling Point:	Not Applicable
Flash Point:	Not Determined
Evaporation Rate:	Not Applicable
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	1.284 g/mL
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	Not Applicable
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 5 of 8

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Inhalation: This product may release nuisance dust in handling or use. Exposure to dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract..

11.2 Information on Toxicological Effects

Acute Toxicity/Effects

Oral, Rat LD₅₀ : > 2,000 mg/kg-bw

Dermal, Rat LD₅₀: Natular® G30: > 2,000 mg/kg-bw
Spinosad: >5,000 mg/kg-bw

Inhalation, Rat LC₅₀ : > 4.08 mg/L

Skin Corrosion/Irritation: This product is not a skin irritant

†Calcium Oxide (CAS# 1305-78-8), a component of sand, is classified as Skin Corrosion/Irritation Category 1C under the OSHA 2012 HCS.

Serious Eye Damage/Irritation: This product is not an eye irritant

Skin Sensitization: This product is not a skin sensitizer

STOT – Single Exposure: Dust may cause mechanical irritation to the lungs.

Chronic Toxicity/Effects

Germ Cell Mutagenicity: This product is not mutagenic.

Carcinogenicity: This product is not considered carcinogenic.

Spinosad is not carcinogenic.

†Sand may cause cancer from repeated exposure via the inhalation route of exposure from respirable particles.

†Sand (CAS# 14808-60-7) and its primary constituent, Quartz (CAS# 14808-60-7) are classified as Carcinogenicity Category 1 under the OSHA 2012 HCS, IARC Group 1 – Carcinogenic, and an NTP Known Human Carcinogen.

†Titanium Oxide (CAS# 13463-67-7), a component of sand, is classified as Carcinogenicity Category 2 under the OSHA 2012 HCS, IARC Group 2B – Possible Carcinogen.

Reproductive Effects: Spinosad, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 6 of 8

STOT – Repeated Exposure:

In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

†Sand may cause irritation and/or lung damage, including silicosis, fibrosis, and inflammation.

†Sand (CAS# 14808-60-7) and its constituent, Quartz (CAS# 14808-60-7), are classified as Specific Target Organ Toxicity- Repeat Exposure Category 1 under the OSHA 2012 HCS. Sand constituents, Aluminum Oxide (CAS# 1344-28-1), and Titanium Oxide (CAS# 13463-67-7), are classified as Specific Target Organ Toxicity- Repeat Exposure Category 2 under the OSHA 2012 HCS.

Additional Information:

†Natular® G30 is a multi-layer coated sand-core granule. Natular™ G30 as formulated is not expected to form appreciable respirable dust from sand from use or attrition. Exposure to respirable sand particles from Natular™ G30 is not expected to occur due to the manner in which its constituents are bound.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish:	96-hr Acute LC ₅₀ 5.0 mg/L, Common Carp (<i>Cyprinus carpio</i>) 96-hr Acute LC ₅₀ 5.9 mg/L, Bluegill Sunfish (<i>Lepomis macrochirus</i>) 96-hr Acute LC ₅₀ 30 mg/L, Rainbow Trout (<i>Oncorhynchus mykiss</i>)
Toxicity to Aquatic Invertebrates:	48-hr Acute EC ₅₀ 1.5-14.0 mg/L, Water Flea (<i>Daphnia magna</i>) 48-hr LC ₅₀ > 7.9 mg/L, Mysid Shrimp (<i>Americamysis bahia</i>)
Toxicity to Aquatic Plants:	5-d EC ₅₀ 8.1 mg/L, Blue Green Algae (<i>Anabaena flos-aquae</i>)

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K _{ow} :	Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)
Bioaccumulation:	Bioconcentration potential is low (BCF < 100)
Bioconcentration Factor:	Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)
Mobility in Soil:	Potential for mobility in soil is low (K _{oc} between 500 and 2000)
Partition Coefficient, K _{oc} :	701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)

Not regulated (Bulk and Non-Bulk Quantities)



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 7 of 8

14.2 IMDG (Vessel)

UN Number: 3077
Hazard Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Marine Pollutant: Yes

14.3 ICAO/IATA (Air transport)

UN Number: 3077
Hazard Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION
KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS: Hazards to Humans and Domestic Animals: Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have a person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None
Section 311/312: Immediate (acute) hazard
Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Aluminum Oxide (CAS 1344-28-1), fibrous forms

OSHA HAZARD COMMUNICATION STANDARD: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm:

Titanium Oxide (CAS 13463-67-7), airborne, unbound particles of respiratory size
Quartz (silica, crystalline, CAS 14808-60-7), airborne particles of respirable size



SAFETY DATA SHEET

NATULAR® G30

Effective Date: 13 April 2021

v.02

Page 8 of 8

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

© NATULAR is a Trademark of Clarke Mosquito Control Products, Inc.

End of document



NATULAR® T30

Mosquito Larvicide / 30-Day Tablet

Controls larvae of mosquitoes which may carry Dengue, Chikungunya, or Zika.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient:	
Spinosad (a mixture of spinosyn A and spinosyn D)	8.33%
Other ingredients:	91.67%
Total	100.00%

U.S. Patent No. 5,362,634 and 5,496,931

Natular T30 is an 8.33% tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

Group

5

INSECTICIDE

Keep Out Of Reach Of Children

CAUTION

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid

If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

Natular T30 is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular T30 releases effective levels of spinosad for up to 30 days under typical environmental conditions.

Release of spinosad is affected by the dissolution of the Natular T30 tablet. If tablets become covered by obstructions such as debris, vegetation, or loose sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the tablet, thus reducing the residual life of the tablet. Inspect areas of water flow to determine appropriate retreatment intervals. To assure positive results, place Natular T30 tablets where they will not be swept away by flushing action.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular T30 is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

Natular T30 contains a Group 5 insecticide.

Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs
- Do not use less than the labeled rates.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 5 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not

- exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Natular T30 tablets provide up to 30 days of residual kill. Natular T30 can be applied prior to flooding, on snow and ice in breeding sites prior to spring thaw, or at anytime after flooding in listed sites. Continue treating through the last brood of the season. Natular T30 tablets will be unaffected in dry down situations and will begin working again during subsequent wetting events until the tablet is exhausted. Note: Natular T30 has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

Application Sites and Rates

Natular T30 tablets are designed to kill mosquitoes in small bodies of water. Do not apply to water intended for irrigation. Examples of application sites are:

Storm water drainage areas, sewers and catch basins, woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks, rock holes, pot holes and similar areas subject to holding water.

Natural and manmade aquatic sites, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, flooded crypts, transformer vaults, abandoned swimming pools, construction and other natural or manmade depressions.

Stream eddies, creek edges, detention ponds.

Freshwater swamps and marshes including mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation.

Brackish water swamps and marshes, intertidal areas.

Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing and similar areas.

Also for use in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle) and in standing water where mosquito breeding occurs within agricultural areas: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

For mosquito kill in non- or low-flow, shallow depressions (up to 2 feet in depth) treat on the basis of surface area placing 1 Natular T30 tablet per 100 sq ft.

Natular T30 Application Chart

Number of Tablets per 100 sq. ft.	Water Depth (ft)
1	0 - 2
2	2 - 4
3	4 - 6
4	6 - 8

For applications in storm water drainage areas, sewers and catch basins, place Natular T30 tablet into each catch basin.

For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

For application to small contained sites which may not be amenable to a rate of a single tablet per 100 sq ft, use 1 tablet per contained site (e.g., cesspools and septic tanks, transformer vaults, abandoned pools, and other small artificial water-holding containers).

Restriction: Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage: Store in a cool dry place in original container only.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling:

For Refillable Container: Refillable container. Refill this container with spinosad pesticide formulation only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

For Nonrefillable Container: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

WARRANTY: To the extent consistent with applicable law Clarke Mosquito Control Products, Inc. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

Manufactured For:

Clarke Mosquito Control Products, Inc.
 159 North Garden Avenue
 Roselle, Illinois 60172 U.S.A.
 1-800-323-5727

EPA Reg. No.: 8329-85 EPA Est. No.: _____

Net Weight: _____ Lot No.: _____



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 1 of 6

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular™ T30

EPA Registration Number: 8329-85

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Not Classified

Hazard Symbol(s): None

Signal Word: None

Hazard statements: None

Precautionary Statements: None

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Spinosad:		8.33
Spinosyn A	131929-60-7	
Spinosyn D	131929-63-0	

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 2 of 6

Eye Contact: Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NOx.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Collect all material with shovel, other instrument, or by hand while using appropriate personal protection equipment, and place in closable marked containers.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 3 of 6

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Solid tablet
Color:	Tan/white
Odor:	Earthy scent
Odor Threshold:	Not Available
pH:	Not Determined
Melting Point:	Not Determined
Freezing Point:	Not Applicable
Initial Boiling Point:	Not Applicable
Flash Point:	Not Determined
Evaporation Rate:	Not Applicable
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	1.9075 g/mL
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	Not Applicable
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 4 of 6

Oxidizing Properties: Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

11.2 Information on Toxicological Effects

Acute Toxicity/Effects*

*Acute toxicity values are not available for Natular™ T30. Presented values are based on toxicity values of a product of similar composition and form.

Oral, Rat LD₅₀ : > 2,000 mg/kg-bw

Dermal, Rat LD₅₀ : > 4,000 mg/kg-bw

Inhalation, Rat LC₅₀ : > 5.0 g/m³

Skin Corrosion/Irritation: Not a skin irritant

Serious Eye Damage/Irritation: Slight irritant. Natular™ T30 is not classified as an eye irritant according to OSHA 2012 HCS

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

Chronic Toxicity/Effects

Germ Cell Mutagenicity

This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Spinosad is not mutagenic.

Carcinogenicity:

This product does not contain any carcinogens as listed by OSHA, IARC, or NTP. Spinosad is not carcinogenic.



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 5 of 6

Reproductive Effects:	No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity. For Spinosad: in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
STOT – Repeated Exposure:	In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish:	96-hr Acute LC ₅₀ 5.0 mg/L, Common Carp (<i>Cyprinus carpio</i>) 96-hr Acute LC ₅₀ 5.9 mg/L, Bluegill Sunfish (<i>Lepomis macrochirus</i>) 96-hr Acute LC ₅₀ 30 mg/L, Rainbow Trout (<i>Oncorhynchus mykiss</i>)
Toxicity to Aquatic Invertebrates:	48-hr Acute EC ₅₀ 1.5-14.0 mg/L, Water Flea (<i>Daphnia magna</i>) 48-hr LC ₅₀ > 7.9 mg/L, Mysid Shrimp (<i>Americamysis bahia</i>)
Toxicity to Aquatic Plants:	5-d EC ₅₀ 8.1 mg/L, Blue Green Algae (<i>Anabaena flos-aquae</i>)

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K _{ow} :	Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)
Bioaccumulation:	Bioconcentration potential is low (BCF < 100)
Bioconcentration Factor:	Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)
Mobility in Soil:	Potential for mobility in soil is low (K _{oc} between 500 and 2000)
Partition Coefficient, K _{oc} :	701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)	Not regulated (Bulk and Non-Bulk Quantities)
14.2 IMDG (Vessel)	
UN Number:	3077
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Marine Pollutant:	Yes
14.3 ICAO/IATA (Air transport)	



SAFETY DATA SHEET

NATULAR™ T30

Effective Date: 1 June 2015

v.01

Page 6 of 6

UN Number: 3077
Hazard Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION
Keep Out of Reach of Children

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals: Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None
Section 311/312: Immediate (acute) hazard
Section 313: None

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

™ NATULAR is a Trademark of Clarke Mosquito Control Products, Inc.

End of document



NATULAR[®] XRT

Mosquito Larvicide / Extended Release Tablet

Controls larvae of mosquitoes which may carry Dengue, Chikungunya, and Zika.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient (dry weight basis):	
Spinosad (a mixture of spinosyn A and spinosyn D)	6.25%
Other Ingredients	93.75%
Total	100.00%

U.S. Patent No. 5,362,634 and 5,496,931

Natular XRT is a 6.25% tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

SPINOSAD	GROUP	5	INSECTICIDE
----------	-------	---	-------------

KEEP OUT OF REACH OF CHILDREN

For medical treatment information or emergency: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

Natular XRT is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular XRT tablets release effective levels of spinosad over a period up to 180 days in mosquito breeding sites. The tablet is designed for easy application to catch basins.

Release of spinosad is affected by the dissolution of the Natular XRT tablet. If tablets become covered by obstructions such as debris, vegetation, or loose sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the tablet, thus reducing the residual life of the tablet. Inspect areas of water flow to determine appropriate re-treatment intervals. To assure positive results, place Natular XRT tablets where they will not be swept away by flushing action.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular XRT is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

Natular XRT contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticides is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Do not use less than the labeled rates.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 3 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

APPLICATION

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Natular XRT tablets can be applied prior to flooding, on snow and ice in breeding sites prior to spring thaw, or at any time after flooding in listed sites. Under normal conditions, one application will last the entire mosquito season, or up to 180 days, whichever is shorter. Natular XRT tablets will be unaffected in dry down situations and will begin working again during subsequent wetting events until the tablet is exhausted. Note: Natular XRT has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

Application Sites and Rates

Natular XRT tablets are designed to kill mosquitoes in natural and manmade depressions that hold water. Do not apply to water intended for irrigation. Examples of application sites are:

Storm water drainage areas, sewers and catch basins, woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks, rock holes, pot holes and similar areas subject to holding water.

Natural and manmade aquatic sites, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, flooded crypts, transformer vaults, abandoned swimming pools, construction and other natural or man-made depressions.

Stream eddies, creek edges, detention ponds.

Freshwater swamps and marshes including mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation.

Brackish water swamps and marshes, intertidal areas.

Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing and similar areas.

Also for use in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle) and in standing water within agricultural areas where mosquito breeding occurs: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

For mosquito kill in non- or low-flow, shallow depressions (up to 2 feet in depth), treat on the basis of surface area placing 1 Natular XRT tablet per 100 sq ft. Place tablets in the lowest areas of mosquito breeding sites to maintain continuous kill as the site alternately floods and dries up.

Natular XRT Application Chart

Number of Tablets per 100 sq. ft.	Water Depth (ft)
1	0 - 2
2	2 - 4
3	4 - 6
4	6 - 8

For applications in storm water drainage areas, sewers and catch basins, place 1 Natular XRT tablet into each catch basin.

For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

For application to small contained sites which may not be amenable to a rate of a single tablet per 100 sq ft, use 1 tablet per contained site (e.g., cesspools and septic tanks, transformer vaults, abandoned pools, and other small artificial water-holding containers).

Restriction: Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool dry place in original container only.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling:

For Refillable Container: Refillable container. Refill this container with spinosad pesticide formulation only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

For Nonrefillable Container: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Warranty: To the extent consistent with applicable law CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

Manufactured For:

Clarke Mosquito Control Products, Inc.
North Garden Avenue
Roselle, IL 60172

EPA Reg. No.: 8329-84

Net Contents: _____

Lot No.: _____

Available Container Size: 19.4 lbs / 220 Tablets



SAFETY DATA SHEET

NATULAR® XRT

Effective Date: 9 January 2019

v.02

Page 1 of 6

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular® XRT

EPA Registration Number: 8329-84

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Not Classified

Hazard Symbol(s): None

Signal Word: None

Hazard statements: None

Precautionary Statements: None

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Spinosad:		6.25
Spinosyn A	131929-60-7	
Spinosyn D	131929-63-0	

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures



SAFETY DATA SHEET

NATULAR[®] XRT

Effective Date: 9 January 2019

v.02

Page 2 of 6

Eye Contact: Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NOx.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Collect all material with shovel, other instrument, or by hand while using appropriate personal protection equipment, and place in closable marked containers.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities



SAFETY DATA SHEET

NATULAR® XRT

Effective Date: 9 January 2019

v.02

Page 3 of 6

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: While not required, it is good practice to minimize eye contact by wearing eye protection such as safety glasses, goggles or face shield during use.

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Solid tablet
Color:	Tan/white
Odor:	Earthy scent
Odor Threshold:	Not Available
pH:	Not Determined
Melting Point:	Not Determined
Freezing Point:	Not Applicable
Initial Boiling Point:	Not Applicable
Flash Point:	Not Determined
Evaporation Rate:	Not Applicable
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	1.766 g/mL
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	Not Applicable
Decomposition Temperature:	Not Available



SAFETY DATA SHEET

NATULAR® XRT

Effective Date: 9 January 2019

v.02

Page 4 of 6

Explosive Properties: Not Available

Oxidizing Properties: Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

11.2 Information on Toxicological Effects

Acute Toxicity/Effects*

*Some acute toxicity values are not available for Natular® XRT. Presented values are based on toxicity values of a product of similar composition and form.

Oral, Rat LD₅₀ : > 5,050 mg/kg-bw

Dermal, Rat LD₅₀ : > 2,000 mg/kg-bw

Inhalation, Rat LC₅₀ : > 5.0 g/m³

Skin Corrosion/Irritation: Not a skin irritant

Serious Eye Damage/Irritation: Not an eye irritant

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

Chronic Toxicity/Effects

Germ Cell Mutagenicity

This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Spinosad is not mutagenic.



SAFETY DATA SHEET

NATULAR[®] XRT

Effective Date: 9 January 2019

v.02

Page 5 of 6

Carcinogenicity:	This product does not contain any carcinogens as listed by OSHA, IARC, or NTP. Spinosad is not carcinogenic.
Reproductive Effects:	No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity. For Spinosad: in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
STOT – Repeated Exposure:	In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish:	96-hr Acute LC ₅₀ 5.0 mg/L, Common Carp (<i>Cyprinus carpio</i>) 96-hr Acute LC ₅₀ 5.9 mg/L, Bluegill Sunfish (<i>Lepomis macrochirus</i>) 96-hr Acute LC ₅₀ 30 mg/L, Rainbow Trout (<i>Oncorhynchus mykiss</i>)
Toxicity to Aquatic Invertebrates:	48-hr Acute EC ₅₀ 1.5-14.0 mg/L, Water Flea (<i>Daphnia magna</i>) 48-hr LC ₅₀ > 7.9 mg/L, Mysid Shrimp (<i>Americamysis bahia</i>)
Toxicity to Aquatic Plants:	5-d EC ₅₀ 8.1 mg/L, Blue Green Algae (<i>Anabaena flos-aquae</i>)

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K _{ow} :	Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)
Bioaccumulation:	Bioconcentration potential is low (BCF < 100)
Bioconcentration Factor:	Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)
Mobility in Soil:	Potential for mobility in soil is low (K _{oc} between 500 and 2000)
Partition Coefficient, K _{oc} :	701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)	Not regulated (Bulk and Non-Bulk Quantities)
14.2 IMDG (Vessel)	
UN Number:	3077
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)



SAFETY DATA SHEET

NATULAR® XRT

Effective Date: 9 January 2019

v.02

Page 6 of 6

Marine Pollutant: Yes

14.3 ICAO/IATA (Air transport)

UN Number: 3077

Hazard Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)

Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Keep Out of Reach of Children

For medical treatment information or emergency: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

Precautionary Statements

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: None

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW: National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

© NATULAR is a Registered Trademark of Clarke Mosquito Control Products, Inc.

End of document



NISUS DSV™

Disinfectant • Sanitizer • Virucide

Nisus DSV is a broad spectrum disinfectant, sanitizer, virucide, mildewstat, fungicide and deodorizer that is labeled to kill dozens of strains of viruses and bacteria and as well as small flies. It effectively disinfects residential and commercial sites of possible labeled viruses and bacteria.

Nisus DSV comes in an economical concentrate that is diluted and applied by spraying, using a mop and bucket, heavy misting or by soaking. DSV can be used both for everyday cleaning as well as a wide variety of critical or emergency situations.

DSV is also labeled to kill the following pathogens on hard, nonporous surfaces:

- Human Coronavirus*
- Hantavirus
- Hepatitis B Virus (HBV)
- Hepatitis C Virus (HCV Herpes Simplex) Type 1 Virus (ATCC VR260)
- HIV-1 (AIDS Virus)
- Influenza A/Brazil Virus
- Influenza A H1N1 Virus (Strain A/PR/8/34 and ATCC VR-1469)

Surfaces should remain wet with DSV for 10 minutes for effective control.



Eliminates harmful bacteria & viruses.

** EPA has determined that Nisus DSV is effective against SARS-CoV-2, the cause of COVID-19.*





**SEWER BACKUP • RIVER FLOODING • WATER/SMOKE DAMAGE RESTORATION
HOME • INDUSTRIAL • HOSPITAL • FARM & FOOD HANDLING AND PROCESS AREAS**

ACTIVE INGREDIENTS:

Octyl Decyl Dimethyl Ammonium Chloride....	1.650%
Didecyl Dimethyl Ammonium Chloride	0.825%
Dioctyl Dimethyl Ammonium Chloride	0.825%
Alkyl (C ₁₄ , 50%; C ₁₂ , 40%; C ₁₆ , 10%) dimethyl benzyl ammonium chloride.....	2.200%
INERT INGREDIENTS	94.500%
TOTAL.....	100.000%

EPA Reg. No. 10324-80-64405 EPA Est. 64405-TN-1

MADE IN U.S.A.

**KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO**

First Aid

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PELIGRO: SI NO PUEDE LEER EN INGLES, PREGUNTE A SU SUPERVISOR SOBRE LAS INSTRUCCIONES DE USO APROPIADAS ANTES DE TRABAJAR CON ESTE PRODUCTO.

DANGER: IF YOU CANNOT READ ENGLISH, ASK YOUR SUPERVISOR TO EXPLAIN THE APPROPRIATE DIRECTIONS FOR USE BEFORE WORKING WITH THIS PRODUCT.

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

DANGER. Keep Out of Reach of Children. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed, absorbed through the skin. Harmful if inhaled. Avoid breathing spray mist. Do not get into eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not mix with oxidizers, anionic soaps and detergents.

NISUS DSV

Disinfectant, Cleaner, Mildewstat, Fungicide, Non-Food Contact Surface Sanitizer, Virucide*, Deodorizer for Hospitals, Nursing Homes, Whirlpools, Home, Hotels, Motels, Waterbed Conditioner, Institutional, Industrial, School, Dairy, Equine, Poultry/Turkey Farm, Veterinary, Restaurant, Food Handling and Process Areas, Federally Inspected Meat and Poultry Plants, Bar and Institutional Kitchen Use and for Harvesting & Handling Equipment. Effective in hard water up to 400 ppm hardness (calculated as CaCO₃) in the presence of 5% serum contamination.

Small Fly Ovicidal Treatment.

Athletic Surface Disinfectant.

Formulated for effective Poultry, Swine Premise and Mushroom Farm Sanitation.

This formulation is for use on hard, non-porous surfaces in:

- Hospitals, medical and dental offices and clinics, healthcare facilities, nursing homes, physician offices, operating rooms/theaters, radiology rooms, isolation wards, quarantine areas, hospices, and medical research facilities.
- Patient care rooms & facilities, recovery rooms, Emergency Rooms, X-ray cat labs, exam rooms, newborn nurseries, neonatal units, orthopedics, respiratory therapy, surgi-centers, labs, out-patient surgical centers, blood collection rooms, central supply, housekeeping & janitorial rooms, ophthalmic/optometric facilities.
- EMS & fire facilities, emergency vehicles, ambulances, ambulance equipment/surfaces, police cars, fire trucks.
- Day care centers and nurseries, sick rooms, elder care centers, kindergartens, and preschools.
- Acute care institutions, alternate care institutions, home healthcare institutions.
- Life care retirement communities, elder care facilities.
- Restaurants, restaurants and bars, bars, kitchens, taverns, cafeterias, institutional kitchens, fast food operations and food storage areas.
- Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms and laundries, photocopy centers, bicycle shops, auto repair centers.
- Computer manufacturing sites, toy factories.
- Food establishments, coffee shops, donut shops, bagel stores, pizza parlors, liquor stores.
- Crime scenes and funeral homes, morgues, mortuaries, burial vaults, mausoleums, autopsy rooms, cadaver processing areas.
- Police stations, courthouses, correctional facilities, jails, prisons, municipal government buildings, penitentiaries, correctional institutions, bus stations, train stations.
- Institutional facilities, laboratories, factories, business and office buildings, restrooms, hotels and motels, and transportation terminals, maintenance vehicles.
- Public restrooms, public facilities, waysides, travel rest areas, shower rooms, shower stalls, bathrooms, shower and bath areas.
- Hotels, motels, dormitories.
- Kitchens, bathrooms and other household areas.
- Homes, condos, apartments, vacation cottages, summer homes.
- Institutions, schools and colleges, commercial and industrial institutions, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, exercise facilities, gyms, gymnasiums, fieldhouses.
- Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities, warehouses.
- Health clubs, spas, tanning salons, tanning spas/beds, footbath surfaces, massage/facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors. *Not for use on needles or other skin piercing instruments.*
- Museums, art galleries, post offices, performance / theater centers, banks, libraries, movie houses, bowling alleys.
- Recycling centers.
- Humidifier water tanks.
- Campgrounds, playgrounds, recreational facilities, picnic facilities, sports arenas, sports complexes.
- Food processing plants, USDA inspected food-processing facilities, farms, dairy farms, hog farms, equine farms, poultry and turkey farms and egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms, rendering plants, canneries, caterers, bakeries, meat packing plants, hide and leather processing plants.
- Processing facilities for Fish, Milk, Citrus, Wine, Fruit, Vegetable, Ice Cream, and Potatoes and beverage plants.
- Tobacco plant premises and equipment.
- Veterinary clinics, animal life science laboratories, animal laboratories, animal research centers, animal quarantine areas, animal holding areas, animal breeding facilities, kennels, dog/cat animal kennels, breeding and grooming establishments, pet animal quarters, zoos, equine farms, pet shops, tack shops, operating rooms, washing areas, waiting rooms, examination rooms and other animal care facilities.
- Farmhouses, barns, sheds, tool sheds, barns, cattle barns, swine barns, sheep barns, horse barns, brooder houses, seed houses.
- Household and automotive garages, boats, ships, barges, watercraft, campers, RVs, trailers, mobile homes, cars, automobiles, trucks, delivery trucks, box-cars, tankers, tank trucks, buses, trains, taxis, helicopters and airplanes.
- Cruise lines, cruise ships, airline terminals, airports, shipping terminals, public transportation, transportation terminals.
- Commercial florist and flower shops.
- Basements, cellars, bedrooms, attics, living rooms and porches.

This product can be used on washable hard, non-porous surfaces such as:

- Food preparation and storage areas.
- Kitchen equipment such as trash compactors.
- Countertops, countertop laminates, stovetops, sinks, tub surfaces, non-food contact surfaces of Slurpee® machines, and exterior surfaces of appliances, refrigerators, microwave ovens and ice machines, shelves, racks and carts.
- Hospital beds, bed railings, bedpans, gurneys, traction devices, MRI, CAT, examining tables, scales, paddles, wheelchairs, hard, non-porous surfaces of cervical collars and neck braces, spine backboards, stretchers, unit stools, CPR training mannequins, curing lights, light lens covers, slit lamps, operating room lights, operating tables, oxygen hoods, dental chairs/ countertops, examination tables, X-ray tables, washing areas, anesthesia, carts, whirlpool surfaces, footbath surfaces.
- Ultrasonic baths, whirlpools, whirlpool bathtubs.
- Highchairs, baby cribs, diaper changing stations, infant bassinets / cribs / warmers / incubators / care equipment, folding tables, hampers, laundry pails.
- Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet seats, toilet bowls, toilet bowl surfaces, urinals, empty diaper pails, portable and chemical toilets and latrine buckets, glazed porcelain, glazed tile and restroom fixtures, bathroom fixtures.
- Glass, laminated surfaces, metal, stainless steel, glazed porcelain, glazed ceramic, sealed granite, sealed marble, plastic, (such as polycarbonate, polyvinylchloride, polystyrene or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome and vinyl, Plexiglas®, vanity tops.
- Tables, chairs, desks, folding tables, workstations, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans/pails, trash barrels, trash cans, trash containers, cuspidors and spittoons.
- Enameled surfaces, painted (finished) woodwork, Formica®, vinyl and plastic upholstery, washable wallpaper.
- Sealed foundations, steps, plumbing fixtures, finished baseboards and windowsills.
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning and refrigeration equipment and heat pumps.
- Large, inflatable, non-porous plastic and rubber structures such as animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment.
- Non-wooden picnic tables and outdoor furniture except cushions and wood frames.

- Tattoo equipment. (*Not for use on needles or other skin piercing instruments.*)
- Playground equipment.
- Automobile interiors.
- Maintenance equipment.
- Telephones and Telephone booths.
- External Lenses Vision correction including eyeglasses (not for use on contact lenses), protective eyewear, goggles, light lens covers,
- Optical instruments/implements.
- Hair clippers, cutting implements, plastic rollers, washable nail files.
- Hard hats, headphones.
- Kennel runs, cages, kennel/cages floors, conductive flooring, examination tables, veterinary x-ray tables.
- Hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chick boxes, egg cases, vans and trash containers, seed houses.
- Wrestling and gymnastic mats, athletic training tables, physical therapy tables, exercise equipment.
- Crypton barrier fabric.
- Drinking fountains.
- Windows and mirrors.

Contains no abrasives so it won't scratch surfaces.

This product is a phosphate-free formulation designed to provide effective cleaning, deodorizing and disinfection in areas where housekeeping is of prime importance in controlling the hazard of cross contamination on treated surfaces.

This product is an economical concentrate that can be used with a mop and bucket, trigger sprayers, sponge or by soaking.

This product can be applied through foaming apparatus, low-pressure sprayers, and fogging (wet misting) systems. Follow manufacturers' instructions when using this equipment.

This product is for use as a disinfectant on hard, non-porous surfaces. A potable water rinse is required after application on food contact surfaces.

This product delivers non-acid disinfection performance in an economical concentrate.

Effective sanitizer in the presence of soils.

This product is for use in kitchens, bathrooms and other household areas.

This product is a multi-surface cleaner, deodorizer and disinfectant. Use on windows, mirrors, and other non-food contact glass surfaces.

This product can be used in work areas such as tool rooms and garages for odor control and light duty cleaning.

Great for use in the kitchen, bathroom and other household areas. Eliminates odors. Deodorizes. Will not harm most surfaces.

Disinfects kitchen and bathroom surfaces. Sanitizes non-food contact kitchen and bathroom surfaces. Kills germs. Kills household bacteria. A potable water rinse is required after application on food contact surfaces.

Kills common kitchen and bathroom bacteria and viruses*.

For larger areas such as operating rooms and patient care facilities, this product is designed to provide both general cleaning and disinfection.

Will not cause swelling of transducer membrane or harm compressor plates.

This product is a versatile sanitizer and broad-spectrum disinfectant formulated for use in Ultrasonic Baths.

This product is a versatile cleaner, sanitizer and broad-spectrum disinfectant formulated for use on bath and therapy equipment.

Kills Avian Influenza A Virus H5N1 on pre-cleaned environmental surfaces.

This product is a one-step disinfectant that is effective against a broad-spectrum of bacteria, is virucidal*, including HIV-1, HCV & HBV, and inhibits the growth of mold and mildew and their odors when used as directed.

This product meets AOAC Use – Dilution Test Standards for hospital disinfectants at 400 ppm water hardness.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing (*Duck*) Hepatitis B Virus.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing Bovine viral diarrhea virus (BVDV), a surrogate for human Hepatitis C virus.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing Human and Canine Coronavirus.

This product is a disinfectant and non-food contact surface sanitizer for cleanroom, and laboratory areas to disinfect washable, hard, non-porous non-food contact surfaces such as: Laminar-airflow equipment and Bio-Safety Cabinet work surfaces and exterior surfaces of the following: countertops, sinks, plumbing fixture surfaces, incubators, refrigerators and centrifuge surfaces of metal, stainless steel, glass, plastic such as polystyrene or polypropylene, Formica® and vinyl.

This product is a one-step disinfectant cleaner and odor neutralizer designed for general cleaning, disinfecting, deodorizing and controlling mold and mildew on hard, non-porous environmental surfaces. This product cleans quickly by removing dirt, grime, mold, mildew, body oils, dead skin, blood and other organic matter commonly found in hospitals, in health care facilities, nursing homes, schools and colleges, day care centers, medical offices, funeral homes, veterinary clinics, pet shops, equine farms, animal life science laboratories, hotels,

motels, public areas and restrooms, foodservice establishments and food processing plants. It also eliminates odors leaving surfaces smelling clean and fresh. Use where odors are a problem.

Use this product to clean, sanitize and disinfect non-porous ambulance equipment and surfaces by rinsing all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120°F), and allow to air dry. Precaution: Cleaning at 120°F temperature will avoid overheating and distortion of the ambulance equipment and surfaces that would necessitate replacement.

When used as directed, this product will deodorize surfaces in restroom and toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacterial growth can cause malodors.

This product is specially formulated to effectively eliminate offensive odors caused by mold and mildew.

This product is effective against household bacteria and odors caused by animal waste, septic tank or sewage backup, smoke and bathroom and kitchen odors.

This product inhibits bacterial growth on moist surfaces and deodorizes by killing microorganisms that cause offensive odors. *Not for use in California.*

This product is for use in household and commercial humidifiers. Use of this product will control unpleasant (malodors) odors.

This product cleans, disinfects and deodorizes surfaces by killing odor causing microorganisms and mold and mildew. Its non-abrasive formula is designed for use on restroom surfaces: glazed ceramic restroom tile, glazed porcelain, chrome, stainless steel and plastic surfaces associated with floors, walls, fixtures, toilets, urinals, sinks, shower rooms, and locker rooms.

This product is effective at controlling mold and mildew on shower curtains.

This product provides long lasting freshness against tough odors such as odors from litter boxes and pet accidents.

This product cleans, shines, deodorizes and disinfects all hard, non-porous household surfaces listed on the label. It inhibits the growth of mold and mildew, leaving bathrooms and kitchens clean and fresh smelling.

Eliminates odors caused by bacteria, mildew and non-fresh foods. Kills odor causing bacteria in the kitchen and bathroom.

This product is for non-scratch cleaning of showers and tubs, shower doors and shower curtains, fixtures and toilet bowls.

This product will not leave a grit or soap scum.

This product is a no-rinse disinfectant cleaner that disinfects, cleans and deodorizes in one labor-saving step.

Kills Athlete's Foot fungus on bathroom surfaces.

This product is a versatile Disinfectant/Sanitizer for Veterinarian, Veterinary Practice, Animal Care, Animal Laboratory, and Agricultural and Farm Premise applications.

This product cleans by removing dirt, grime, mold, mildew, blood, urine, fecal matter and other common soils found in animal housing facilities, livestock, swine or poultry facilities, grooming facilities, farms, kennels, pet stores, veterinary clinics, laboratories or other small animal facilities. It eliminates odors leaving surfaces smelling clean and fresh.

This product can be used to disinfect, clean and deodorize terrarium and small animal cages, hot rock, substrate and cage furniture, plastic terrarium ornaments, driftwood, heat caves and water dishes. *Use on rocks and driftwood not allowed in California.*

This product cleans rodent soiled areas.

This product is for use in Poultry Premise Sanitation/Hatcheries:

- Egg Receiving Area
- Egg Holding Area
- Setter Room
- Tray Dumping Area
- Chick Holding Area
- Hatchery Room
- Chick Processing Area
- Chick Loading Area
- Poultry Buildings

This product is for use in Swine Premise Sanitation:

- Farrowing Barns and Areas
- Waterers and Feeders
- Hauling Equipment
- Dressing Plants
- Loading Equipment
- Nursery
- Blocks
- Creep Area
- Chutes

This product is an effective antimicrobial cleaner, designed for use by wholesale and retail florists, shippers and greenhouses.

When used as directed, this product will disinfect hard, non-porous surfaces, such as flower buckets, floors and walls of coolers, design and packing benches, and countertops.

This product can be relied on to deodorize coolers, buckets, garbage pails and other areas where obnoxious odors develop.

Use this product to clean, disinfect and deodorize flower buckets, walls, floors of coolers, shippers, greenhouse packing areas, garbage pails and other areas where obnoxious odors develop.

This product can be used as a general purpose antimicrobial detergent in florist shops, wholesale florist, shippers, greenhouse packing areas and other commercial floriculture places for efficient cleaning and antimicrobial

action against certain bacteria which cause. *Not for use in California:*

- 1.Plugging of stems with slime, which reduces uptake of water for various flowers including roses, chrysanthemums, gladioli and tulips.
- 2.Production of ethylene gas, which can injure blooms of the various sensitive flowers including carnations, snapdragons, some orchids, baby's breath, sweet peas, freesia and alstroemeria.

Use this product to disinfect non-porous salon/barber tools and instruments such as: combs, clippers, plastic rollers, brushes, trimmers, razors, scissors, blades, tweezers, baths, manicure/pedicure instruments and footbath surfaces.

Use this product to clean, sanitize and disinfect hard, non-porous surfaces of personal protective safety equipment, protective headgear, athletic helmets, wrestling/boxing headgear, athletic shoe soles, hard hats, headphones, half mask respirators, full face breathing apparatus, gas masks, goggles, spectacles, face shields, hearing protectors and ear muffs. Rinse all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120°F), and allow to air dry. Precaution: Cleaning at 120°F temperature will avoid overheating and distortion of the personal safety equipment that would necessitate replacement.

This product is formulated to provide effective cleaning strength that will not dull high gloss floor finishes with repeated use.

This product provides effective cleaning strength that will not dull most metal-interlock floor finishes, and does not require a rinse prior to recoat.

Controls the growth of odor-causing bacteria used in waterbed uses. Controls odors caused by bacteria. Prevents bubbles, preserves plasticizers, conditions vinyl interior, sequesters minerals. *(Not for use in CA.)*

Cleans everyday kitchen messes like dirt, grease and food stains. Cuts through tough grease and grime.

For use in: Federally inspected meat and poultry plants on all hard, non-porous surfaces in inedible product processing areas, non-processing areas and/or exterior areas. All surfaces must be thoroughly rinsed with potable water.

Escherichia coli, Salmonella enterica, and Staphylococcus aureus are common germs found where food is prepared and stored. This product kills these bacteria and helps prevent cross-contamination on treated non-food contact kitchen surfaces listed on this label. A potable water rinse is required after application on food contact surfaces. This product is not for use on dishes, glassware or eating utensils.

This product is effective against the control of small flies on non-food contact surfaces such as floors, walls, drains, countertops, metal surfaces, painted surfaces, glazed porcelain, glazed tile, glass, chrome, rubber and plastic in restaurants, kitchens, dishwashing areas and bar and wait station areas.

- Neutral (Neutral pH).

Will not harm sealed stone, sealed grout, or glazed tile.

This product is a complete, chemically balanced disinfectant and sanitizer that provides clear use solutions even in the presence of hard water.

This product is effective against Citrus Canker and Bacterial Spot of Tomatoes through the treatment of the handling, harvesting, storage and transportation equipment.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

DISINFECTION IN INSTITUTIONS (Hospitals, Dental Offices, Nursing Homes, and Other Health Care Institutions): At 2 fluid ounces per gallon of water (or equivalent use dilution) and a 10-minute contact time, this product is effective against the following organisms on hard, non-porous inanimate surfaces:

Burkholderia cepacia
Campylobacter jejuni – ATCC 29428
Corynebacterium ammoniagenes – ATCC 6871
Enterobacter aerogenes – ATCC 13048
Enterobacteriaceae – with extended beta-lactamase resistance
Enterobacter cloacae
Enterococcus faecalis – ATCC 19433
Enterococcus faecium – Vancomycin resistant
Escherichia coli – ATCC 11229
Escherichia coli – Antibiotic resistant
Escherichia coli 0157:H7
Klebsiella pneumoniae – ATCC 13883
Klebsiella pneumoniae – Antibiotic resistant
Legionella pneumophila
Listeria monocytogenes – ATCC 984
Proteus mirabilis
Proteus vulgaris
Pseudomonas aeruginosa – ATCC 15442
Pseudomonas aeruginosa – Antibiotic resistant
Salmonella enterica – ATCC 10708
Salmonella schottmuelleri – ATCC 8759
Salmonella typhi – ATCC 6539
Serratia marcescens – ATCC 43861
Shigella dysenteriae – ATCC 9361
Shigella flexneri
Shigella sonnei
Staphylococcus aureus – ATCC 6538
Community Acquired Methicillin Resistant
Staphylococcus aureus – CA MRSA
Staphylococcus aureus – Methicillin resistant – ATCC 33591
Staphylococcus epidermidis – Antibiotic resistant
Streptococcus pyogenes – ATCC 19615
Vibrio cholerae
Xanthomonas axonopodis pv. *Citri* – Not for use in California
Xanthomonas campestris pv. *Vesicatoria* – Not for use in California

FOR SCHOOLS, INDUSTRY AND NON-MEDICAL INSTITUTIONAL USES: At 1 1/4 ounces per gallon of water (or equivalent use dilution), this product delivers cleaning and germicidal effectiveness. Treated surfaces must remain wet for 10 minutes, then allow to air dry or wipe. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled. It is effective against *Staphylococcus aureus*, *Salmonella enterica*, *Escherichia coli* and *Serratia marcescens*. The same AOAC tests used to confirm performance for hospitals were used.

VIROCIDAL* PERFORMANCE: At 1 1/4 ounces per gallon of water use level (or equivalent use dilution) and a 10-minute contact time, this product was evaluated and found to be effective in the presence of 5% blood serum against the following viruses on hard, non-porous surfaces:

Avian influenza A/Turkey/Wisconsin virus – ATCC VR-798
Herpes Simplex Type1 virus – ATCC VR260
Herpes Simplex Type2 virus – ATCC VR734
HIV-1 – AIDS virus
Influenza A/Brazil Virus
Vaccinia virus

At 2 ounces per gallon of water use level (or equivalent use dilution) and a 10-minute contact time, this product was evaluated and found to be effective against the following viruses on hard, non-porous surfaces:

Avian influenza A/Turkey/Wisconsin virus – ATCC VR-798
Avian influenza A virus – H5N1
Hantavirus
Hepatitis B Virus – HBV
Hepatitis C Virus – HCV
Herpes Simplex Type1 virus – ATCC VR260
Herpes Simplex Type2 virus – ATCC VR734
HIV-1 – AIDS virus
Human Coronavirus
Influenza A/Brazil virus
Influenza A H1N1 virus (Strain A/PR/8/34) (ATCC VR-1469)
Respiratory syncytial virus
Vaccinia virus

NON-FOOD CONTACT SANITIZING PERFORMANCE:

At 1 ounce per 2 3/4 gallons of water use-level (or equivalent use dilution) and a 3-minute contact time, this product is an effective one-step sanitizer on hard, non-porous environmental surfaces against:

Enterobacter aerogenes (ATCC 13048)
Klebsiella pneumoniae (ATCC 4352)
Staphylococcus aureus (ATCC 6538)

FUNGICIDAL ACTIVITY: At 2 ounces per gallon use-level (or equivalent use dilution) and a 10-minute contact time, this product is effective against the following organisms:

Candida albicans (ATCC 10231)
Trichophyton mentagrophytes (ATCC 9533)
(Athlete's foot fungus) (a cause of Ringworm)

GENERAL DISINFECTION DIRECTIONS: For heavily soiled areas, a preliminary cleaning is required. Apply use solution of 1 1/4 ounce per gallon of water to hard, inanimate, non-porous surfaces, thoroughly wetting surfaces as required, with a cloth, brush, mop, sponge or mechanical spray device. For sprayer applications, use a coarse pump or trigger spray device. Spray 6-8 inches from surface. Do not breathe spray. Rub with brush, sponge, mop or cloth. Allow surfaces to remain wet for 10 minutes. Rinse or allow to air dry or wipe up -excess liquid. Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

FOR USE AS A ONE-STEP CLEANER/DISINFECTANT:

1. Pre-clean heavily soiled areas.
2. Apply use solution, 1 1/4 ounce per gallon (or equivalent use dilution) to hard, non-porous environmental surfaces using a sponge, brush, cloth, mop or mechanical spray device.
3. To disinfect, all surfaces must remain wet for 10 minutes.
4. Wipe surfaces and let air dry.
5. Prepare a fresh solution at least daily or when use solution becomes soiled.

Note: All food contact surfaces, such as appliances and kitchen countertops, must be rinsed with potable water. Do not use this product to clean or disinfect glassware, utensils, dishes or interior surfaces of appliances.

FOR DISINFECTING HARD, NON-POROUS SURFACES AGAINST AVIAN INFLUENZA A (H5N1) VIRUS: For use in homes, hospitals, hotels, motels and schools, the directions for use for hospital disinfection must be followed using the rate of 2 ounces per gallon of water (or equivalent use dilution). For use in animal housing facilities, follow the animal premise directions.

TO SANITIZE AND DEODORIZE: Apply use solution of 2 ounces per 5 1/2 gallons of water to hard, inanimate, non-porous surfaces, thoroughly wetting surfaces as required, with a brush, cloth, mop, sponge or mechanical spray device or by immersion. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge, mop or cloth. Do not breathe spray. Let stand 3 minutes. Then wipe. Allow to air dry. Replace product if it becomes visibly dirty.

Note: With spray applications, cover or remove all food products.

GENERAL DISINFECTION/VIRUCIDAL* USE DILUTION CHART

Ounces of Product	Amount of Water
0.3125 ounces	1 quart
0.625 ounces	1/2 gallon
1 1/4 ounces	1 gallon
3.125 ounces	2 1/2 gallons
6 1/4 ounces	5 gallons
12 1/2 ounces	10 gallons

HOSPITAL DISINFECTION/FUNGICIDAL/VIRUCIDAL* USE DILUTION CHART

Ounces of Product	Amount of Water
1/2 ounce	1 quart
1 ounce	1/2 gallon
2 ounces	1 gallon
5 ounces	2 1/2 gallons
10 ounces	5 gallons
20 ounces	10 gallons

DILUTION CHART:

For Hospital or Medical Environment claims	2 oz / 1 gal. water
For General or Broad Spectrum claims	1 1/4 oz / 1 gal. water
For Virucidal* claims	1 1/4 - 2 oz / 1 gal. water
For Animal Virucidal* claims	1 1/4 - 2 oz / 1 gal. water
For Non-Food Contact Sanitizing claims	1 oz / 2 3/4 gal. water
For Fungicidal claims	2 oz / 1 gal. water
For Mold and Mildew claims	1 1/4 oz / 1 gal. water

HOSPITAL/HEALTH CARE

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or, (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product can be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

This product is a Hospital Use Disinfectant at 2 ounces per gallon of water modified in the presence of 400 ppm hard water.

HOSPITALS, DENTAL OFFICES, NURSING HOMES AND OTHER HEALTH CARE INSTITUTIONS: For disinfecting floors, walls, countertops, bathing areas, lavatories, bed frames, tables, chairs, garbage pails and other hard, non-porous surfaces.

INSTITUTIONAL DISINFECTANT DIRECTIONS (Hospitals, Dental Offices, Nursing Homes, and Other Health Care Institutions): For heavily soiled areas, a preliminary cleaning is required. Add 2 ounces per gallon of water (or equivalent use dilution) and apply to disinfect hard, non-porous surfaces. Apply use solution to hard, inanimate, non-porous surfaces, thoroughly wet-

ting surfaces with a brush, cloth, mop, sponge or mechanical spray device. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge, mop or cloth. Do not breathe spray. Treated surfaces must remain wet for 10 minutes. Rinse or allow to air dry. Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

Note: With spray applications cover or remove all food products.

***VIRUCIDAL PERFORMANCE:** For heavily soiled areas, a preliminary cleaning is required. Apply 2 ounces per gallon of water use level (or equivalent use dilution) to treated surfaces, thoroughly wetting surfaces with a brush, cloth, mop, sponge or mechanical spray device. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge, mop or cloth. Do not breathe spray. Treated surfaces must remain wet for ten minutes. Prepare a fresh solution at least daily or more often if solution becomes soiled.

At 1 1/4 ounce per gallon of water (or equivalent use dilution) in the presence of 5% blood serum and 400 ppm of hardness for a 2-minute contact time, this product was found to be effective against HIV-1 (AIDS Virus).

At 2 ounces per gallon of water (or equivalent use dilution) and in the presence of 400 ppm hard water (CaCO₃) and 100% serum, this product was proven to be effective against (*Duck*) Hepatitis B Virus with a contact time of 10 minutes.

At 2 ounces per gallon of water (or equivalent use dilution) and in the presence of 400 ppm hard water (CaCO₃) and 5% organic load, this product was proven to be effective against Bovine viral diarrhea virus (BVDV), a surrogate for human Hepatitis C virus with a contact time of 10 minutes.

***KILLS HBV, HCV and HIV ON PRECLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of (*Duck*) Hepatitis B Virus (HBV), human immunodeficiency virus Type 1 (HIV-1) which is associated with AIDS, and Hepatitis C Virus (HCV).

“SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HBV, HCV AND HIV-1 ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS.”

Personal Protection: Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks, and eye protection.

Cleaning Procedure: Blood and other body fluids containing HIV-1, HBV & HCV must be thoroughly cleaned

from surfaces and objects before application of this product.

Disposal of Infectious Materials: Blood and other body fluids, cleaning materials and clothing must be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

Contact Time: Leave surface wet for 2 minutes and 10 minutes for HIV-1 and HBV, respectively. This 2-minute contact time will not control other common type of viruses and bacteria listed on this label. For HCV, leave surface wet for 10 minutes.

SURGICAL INSTRUMENT PRESOAK: Add 2 ounces of this product to 1 gallon of water (or equivalent use dilution). Place pre-cleaned instruments in solution to presoak surgical instruments for a minimum of 10 minutes, then proceed with normal sterilization procedure. Prepare a fresh solution at least daily or more often if solution becomes visibly dirty.

Note: Plastic instruments can remain immersed until sterilization. Metal instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle until sterilization. Prolonged soaking will cause damage to metal instruments. Surgical instruments must be sterilized before use.

ULTRASONIC BATH DISINFECTANT/FUNGICIDE DIRECTIONS: Use this product to disinfect hard, non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour a fresh solution of 2 ounces of this product per gallon of water (or equivalent use dilution) directly into bath chamber. Pre-clean heavily soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to the manufacturers' use directions. Remove objects and wash with sterile water or allow to air dry. Prepare fresh solution for each use.

FOR DISINFECTING / FUNGICIDAL ON HARD, NON-POROUS FIBERGLASS BATH AND THERAPY EQUIPMENT: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the unit, drain the water and refill with fresh water to just cover the intake valve. Add 2 ounces of this product for each gallon of water (or equivalent use dilution) in the unit at this point. Briefly start the pump to circulate the solution. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solution from the unit and rinse any/all cleaned/disinfected surfaces with fresh water. The unit is ready for reuse.

CLEANING AND DISINFECTING HARD, NON-POROUS SURFACES ON PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORS): Pre-clean equipment if heavily soiled to ensure proper surface contact. Apply a 2-ounce per gallon of water (or equivalent use dilution) use solution to hard, non-porous surfaces of the respirator with a brush, coarse spray device, sponge or by immersion. Thoroughly wet all surfaces to be disinfected.

Treated surfaces must remain wet for 10 minutes. Remove excess solution from equipment prior to storage. The user must comply with all OSHA regulations for cleaning respiratory protection equipment (29 CFR § 1910.134).

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES IN INSTITUTIONAL FACILITIES

ULTRASONIC BATH SANITIZING DIRECTIONS: Use this product to sanitize hard, non-porous, non-critical objects compatible with Ultrasonic cleaning units. Pour a fresh solution of 1 ounce per 2 3/4 gallons of water (or equivalent use dilution) directly into bath chamber. Pre-clean soiled objects. Place objects into unit and operate for a minimum of 3 minutes, according to manufacturers' use directions. Remove objects and rinse with sterile water, or allow to air dry. Replace solution at least daily or when solution becomes visibly dirty.

Note: This product in its use solution is compatible with stainless steel, aluminum and most other surfaces. Before product use, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

FOOD PROCESSING PREMISES

Before using this product, food products and packaging materials must be removed from the room or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

DIRECTIONS FOR FOOD PROCESSING PLANTS: For use on non-food contact surfaces such as floors, walls, tables, garbage cans and disposal areas. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Follow Disinfection directions.

DIRECTIONS FOR FOOD STORAGE AREAS: For use on non-food contact surfaces such as shelves, floors, walls and tables. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Then follow Disinfection directions.

FOR USE AS A CLEANER / DISINFECTANT IN FOOD PROCESSING PLANTS:

1. Before using this product in food processing areas, food products and packaging materials must be removed from the room or carefully protected.
2. Apply a 1 1/4 oz. per gallon of water use solution evenly over surface using a brush, cloth, mop, sponge or mechanical spray device. For sprayer applications, use a coarse spray device. Be sure to wet all surfaces thoroughly. Do not breathe spray.
3. Allow product to remain on surface for 10 minutes.
4. Wipe with clean cloth, sponge or paper towel.
5. For heavily soiled areas, thoroughly clean surface prior to disinfecting.
6. After disinfecting food contact surfaces used for food preparation, rinse surfaces thoroughly with potable water. This product must not be used to clean the following surfaces: utensils, glassware, dishes or interior surfaces of processing equipment.

TO DISINFECT FOOD-PROCESSING AND TOBACCO PREMISES: Before using this product, food products and packaging materials must be removed from area or carefully protected. For floors, walls and storage areas, apply 2 oz. of this product per gallon of water. For heavily soiled areas, a pre-cleaning step is required. Apply solution with a brush, mop, cloth, sponge or hand pump trigger spray device so as to wet all surfaces thoroughly. For sprayer application, use a coarse spray device. Allow surface to remain wet for 10 minutes, then remove excess liquid. After use, all surfaces in the area must be thoroughly rinsed with potable water.

TO DISINFECT FOOD SERVICE ESTABLISHMENT FOOD CONTACT SURFACES: For countertops, exterior surfaces of appliances and tables: Before using this product, food products and packaging materials must be removed from area or carefully protected. Add 2 oz. per gallon of water. For heavily soiled areas, a pre-cleaning step is required. Apply solution with a brush, mop, cloth, sponge or hand pump trigger spray device so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Allow surface to remain wet for 10 minutes. Then remove excess liquid and rinse the surface with potable water. Replace solution at least daily or when solution becomes visibly dirty. This product is not for use on dishes, glassware, eating utensils or interior surfaces of processing equipment.

FOR USE ON NON-FOOD CONTACT SURFACES AS A GENERAL DISINFECTANT IN THE BREWERY INDUSTRY: Use 2 ounces of this product per gallon of water (or equivalent use dilution). Follow the general disinfectant directions above.

DIRECTIONS FOR FOGGING IN DAIRIES, BEVERAGE AND FOOD PROCESSING PLANTS: Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using 1 quart per 1000 cubic feet of room area with a product solution containing 3 ounces of product to 1 gallon of water (or equivalent use dilution). Wear a dust mist respirator when mixing the use solution and pouring it into the fogging apparatus. Vacate the area of all personnel during fogging and for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed prior to reuse with potable water. Allow food contact surfaces to drain thoroughly before operations are resumed.

Note: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances must a room or building be entered by anyone within two hours of the actual fogging and a minimum of 4 air exchanges (ACH) per hour in the facility. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

FOGGING IS TO BE USED AS AN ADJUNCT TO ACCEPTABLE MANUAL CLEANING AND DISINFECTING OF ROOM AND MACHINE SURFACES.

DISINFECTING POTATO STORAGE AREA AND EQUIPMENT: Remove all potatoes prior to disinfection of potato storage area and equipment. Pre-clean hard surfaces by removing heavy soils or gross filth. Follow general disinfecting directions as outlined in that section. All treated surfaces must be thoroughly rinsed with potable water prior to reuse.

FOR CONTROL OF THE *DROSOPHILA* SPP. AND PHORIDAE FAMILY OF FLIES ON NON-FOOD CONTACT SURFACES: To control flies on non-food contact surfaces such as floors, walls, countertops, metal surfaces, painted surfaces, glazed porcelain, glazed tile, glass, chrome, rubber, and plastic in restaurants, kitchens, dishwashing areas, and bar and wait station areas. Remove food and food packaging prior to use. Cover exposed food-handling surfaces. After removing gross filth, apply a solution of 2 ounces of this product per gallon of water (or equivalent use dilution) to surfaces and locations where flies breed. Spray surfaces thoroughly or apply by pouring, mopping or sponging onto the surface. Repeat application 1-2 times per week or as needed. Do not contaminate food and food packaging.

FOR CONTROL OF SMALL FLIES IN DRAINS: For control of small flies: *Drosophila* spp. and the Phoridae family. Spray or pour solution of 2 ounces per gallon of water (or equivalent use dilution) into drain during time of lowest level of drain use. Add 14 ounces of solution daily to each drain to maintain fly control. Apply around the edge of the drain and coat all sides of inside of drain.

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES IN FOOD PROCESSING FACILITIES

SHOE / BOOT BATH SANITIZER DIRECTIONS: To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made solution must be placed at all entrances to buildings, hatcheries and at all the entrances to the production and packaging rooms. Scrape waterproof shoes and place in a 1 ounce of this product per 2.75 gallons of water (or equivalent use dilution) use solution for 3 minutes prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears visibly dirty.

SHOE FOAM DIRECTIONS: To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants, apply a foam layer approximately 0.5 to 2 inches thick made from a solution of 1 ounce per 2.75 gallons of water (or equivalent use dilution) at all entrances to buildings, hatcheries, production and packaging rooms by using a foam generating machine or aerator to apply foam layer. Follow the foaming directions as specified by the manufacturer of the foam generator/aerator. Scrape waterproof shoes. Stand and/or walk through foamed area for 3 minutes prior to entering area. Foam area must be washed and replaced at least daily or when it appears visibly dirty.

ENTRYWAY SANITIZING SYSTEMS: To prevent cross contamination from area to area, set the system to deliv-

er 1 ounce per 2.75 gallons of water (or equivalent use dilution) of sanitizing solution. The spray or foam must cover the entire path of the doorway. Set the system so that a continuous wet blanket of sanitizer solution is delivered to the floor.

Do not mix other foam additives to the sanitizing solution.

MUSHROOM FARM INDUSTRY USE DIRECTIONS

At 2 ounces per gallon use-level, this product is effective against:

Dactylium dendroides – ATCC 6676

Site Preparation: The first step in any on-going sanitation program should be the removal of gross contamination and debris. This can be accomplished by using a shovel, broom, or vacuum, depending on the area to be disinfected.

Disinfection: Use 2 ounces of this product per gallon of water (or equivalent dilution). Wet all surfaces thoroughly. Treated surfaces must be allowed to remain wet for 10 minutes. Let air dry. For heavily soiled areas, pre-clean first. Prepare a fresh solution for each use.

For Heavy Duty Cleaning: When greater cleaning is desired, use 4 ounces of this product per gallon of water (or equivalent dilution). Heavily soiled areas will require repeated cleaning before treatment.

DO NOT APPLY TO THE MUSHROOM CROP, COMPOST OR CASING. Rinse treated surfaces with potable water before they contact the crop, compost or casing.

ANIMAL PREMISES

ANIMAL PREMISE VIRUCIDAL* PERFORMANCE: At 1 1/4 oz. per gallon of water, treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes visibly dirty.

This product was evaluated and found to be effective in the presence of 5% blood serum at 1 1/4 oz. per gallon of water against the following viruses on hard, non-porous surfaces:

- Avian influenza A/Turkey/Wisconsin virus – ATCC VR-798
- Canine Distemper virus
- Infectious Bovine Rhinotracheitis virus – IBR – ATCC VR188
- Newcastle disease virus – ATCC VR109
- Porcine Respiratory & Reproductive virus – PRRSV
- Porcine Rotavirus
- Pseudorabies virus – ATCC VR135
- Transmissible Gastroenteritis virus – TGE

At 2 ounces per gallon of water use level, with treated surfaces remaining wet for 10 minutes, this product was evaluated and found to be effective against the following viruses on hard, non-porous surfaces:

- Avian influenza A virus – H5N1
- Canine Coronavirus

SITE PREPARATION: The first step in any on-going sanitation program must be the removal of gross contamination and debris. This can be accomplished using a shovel, broom, or vacuum depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated thoroughly, clean all surfaces with soap or detergent and rinse with water.

APPLICATION: Remove all animals and feeds from areas to be treated, vehicles and enclosures. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with disinfecting or Virucidal* solution at 1 1/4 oz per gallon of water for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and -manure. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, troughs, automatic feeders, fountains and waterers and other equipment which can contact food or water with soap or detergent, and rinse with potable water before reuse.

VETERINARY CLINICS / ANIMAL LIFE SCIENCE LABORATORY / ANIMAL CARE FACILITIES / ANIMAL RESEARCH CENTERS/ANIMAL LABORATORY / ANIMAL QUARANTINE AREAS / ANIMAL BREEDING FACILITIES / ZOOS / PET SHOP / ANIMAL HUSBANDRY / KENNELS / BREEDING AND GROOMING ESTABLISHMENT / TACK SHOPS DISINFECTION

DIRECTIONS: For cleaning and disinfecting the following hard, non-porous surfaces: equipment not used for animal food or water, utensils, instruments, cages, kennels, stables, stalls and catteries. Remove all animals and feeds from areas to be treated, animal transportation vehicles, crates, etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 2 oz. per gallon of water for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals as well as forks, shovels, and scrapers used in removing litter and manure. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, automatic feeders, waterers, and other equipment which dispenses food or water with soap or detergent, and rinse with potable water before reuse.

At 2 ounces per gallon of water in the presence of 400 ppm of hardness for a 10-minute contact time, this product was found to be effective against Hantavirus.

SPECIAL INSTRUCTIONS FOR CLEANING AND DISINFECTING AREAS WHICH MAY BE INFESTED WITH HANTAVIRUS

Infection with Hantavirus occurs by inhalation of infectious materials. CDC recommends that persons involved with cleanup wear coveralls, disposable, if possible, rubber boots or disposable shoe covers, rubber or plastic gloves, protective goggles, and a half mask air purifying, negative pressure respirator with a high efficiency particulate air (HEPA) filter or a powered air-purifying respirator (PAPR) with HEPA filter. Disinfect Personal Protective gear upon removal at the end of the day. If the coveralls are not disposable, they must be laundered on site. If no laundry facilities are available, the coveralls must be immersed in liquid disinfectant until they can be washed.

All potential infective waste material, including respirator filter, from cleanup operations that cannot be burned or deep buried on site must be double bagged in appropriate plastic bags. The bagged material must then be labeled as infectious, if it is to be transported, and disposed of in accordance with local requirements for infectious waste.

Rodent droppings and visible dust can be reservoirs for Hantavirus. If you are cleaning out a building that has been closed up, such as a cabin, shed or garage:

- a. Air out the building for at least 30 minutes by opening windows and doors.
- b. Leave the building while it is airing out.
- c. Do not vacuum, sweep or dust. This can spread the virus through the air.
- d. Thoroughly wet the contaminated areas with 2 ounces per gallon of water and allow solution to stand undisturbed for 10 minutes.
- e. Carefully remove contaminated material and dispose by burial or burning. Contact your local and state health department for additional disposal methods.
- f. Treat the surface again following the label directions and allow solution to stand undisturbed for 10 minutes.

RENDERING PLANT/DRESSING PLANT DISINFECTANT DIRECTIONS:

Cover or remove all food and packaging materials. Remove all gross soils. Disinfect equipment, walls and floors in poultry and animal dressing plants. Disinfect offal rooms, exterior walls and loading platforms of dressing plants. Saturate all surfaces with the use solution of 1 1/4 oz. per gallon of water. Scrub to loosen all soils. Allow to soak for 10 minutes and thoroughly rinse all wetted and cleaned surfaces with potable water.

RENDERING PLANT / DRESSING PLANT DISINFECTANT / FUNGICIDE / VIRUCIDE* DIRECTIONS:

Cover or remove all food packaging material before disinfection. Remove gross soils. Apply to equipment, walls and floors in poultry and animal dressing plants with a solution of 2 oz. per gallon of water. Surfaces must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all

rooms, exterior walls and loading platforms of dressing plants. Thoroughly rinse all wetted and cleaned surfaces which contact food with potable water before reuse.

TERRARIUM AND SMALL ANIMAL CAGE AND CAGE FURNITURE DISINFECTION *use on rocks and driftwood not allowed in California:* Animals frequently defecate on hot rocks and other hard, non-porous cage furniture items inside your terrarium. This can result in high bacteria and ammonia levels that can lead to possible infection/disease in your animals. When used regularly this product can eliminate these high bacterial/ammonia levels in your cage and on your cage furniture items.

1. Remove all animals.
2. Thoroughly clean all surfaces and objects (hot rocks, caves, cage furniture, feeding and watering dishes, and appliances) including the substrate in the terrarium or cage with soap or detergent and rinse with water.
3. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the disinfecting and virucidal* solution of 1 1/4 oz. per gallon of water for a period of 10 minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. Then wipe surfaces dry.
4. Saturate gravel as above and let stand for 10 minutes. Place in bucket of clean water and swirl for 15-30 seconds. Thoroughly air dry before returning to terrarium.
5. Do not return animals to the habitat until it is dry and ventilated.
6. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
7. Clean terrarium at least once weekly or more as needed.

Note: Do not apply this product directly onto the small animal. If this product comes into contact with the small animal's skin, then immediately wash the material off of the animal with lukewarm water. If the small animal ingests this product, contact your veterinarian immediately. Substrates for desert terrariums, i.e., gravel, must be completely dry before returning to terrarium to avoid high humidity levels. Always replace substrate if a foul odor persists.

FARM PREMISE DISINFECTION DIRECTIONS

FARM PREMISE DISINFECTION DIRECTIONS: Do not use in milking stalls, milking parlors or milk houses. Remove all animals and feed from areas to be treated, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, stables, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Apply a use solution of 2 oz. per gallon of water and allow surface to remain wet for a period of 10 minutes. Immerse all halters, ropes and other types of equipment

used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

VEAL, CALVING, HOG, CATTLE AND HORSE OPERATIONS: Between depopulations of facilities, cleaning and disinfection of pens, hutches, aisles and other environmental surfaces can be required. Empty all troughs, racks, and other feeding and watering appliances. Flush soils from these areas. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with disinfecting or Virucidal* solution at 2 oz. per gallon of water and allow to remain wet for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

POULTRY AND SWINE PREMISE SANITATION

Site Preparation: The first step in any on-going sanitation program should be the removal of gross contamination and debris. This can be accomplished using a shovel, broom, or vacuum depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated, thoroughly clean all surfaces with soap or detergent and rinse with water.

APPLICATION AND USE DILUTION ON POULTRY AND SWINE PREMISES: Remove all animals and feeds from areas to be treated, trucks, cars, coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 2 ounces of this product per gallon of water. Saturate surfaces with the disinfecting solution for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, troughs, automatic feeders, fountains and waterers and other equipment which can contact food or water with soap or detergent, and rinse with potable water before reuse.

DISINFECTION / FUNGICIDE / VIRUCIDE* OF POULTRY / TURKEY EQUIPMENT, SWINE QUARTERS, LIVESTOCK FARMS, EQUINE QUARTERS, ANIMAL QUARTERS AND KENNELS DIRECTIONS:

Prior to disinfection, remove all poultry, other animals and their feed from areas to be treated, vehicles and enclosures. Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 2 ounces of this product per gallon of water (or equivalent use dilution). Saturate surfaces with the disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. After application, ventilate buildings, coops and other closed spaces. Do not house poultry or other animals or employ equipment until treatment has been absorbed, set or dried. All treated equipment that will contact feed or drinking water must be thoroughly scrubbed with soap or detergent, then rinsed with potable water before reuse.

HATCHERIES: Use 2 oz. per gallon of water to treat the following hard, non-porous surfaces: hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chickboxes, egg cases, trash containers, carts, sexing tables, delivery trucks, vans and other hard non-porous surfaces. Leave all treated surfaces exposed to disinfectant solution for 10 minutes or more. Rinse surfaces with potable water before reuse. Allow surfaces to air dry.

VEHICLES: Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. For sprayer applications, use a coarse spray device. Use 2 oz. per gallon of water to treat all vehicles. Leave all treated surfaces wet for 10 minutes or more and allow to air dry.

SPECIAL INSTRUCTIONS FOR INACTIVATING AVIAN INFLUENZA A H5N1 VIRUS: Remove all poultry and feeds from areas to be treated, trucks, coops, and crates. Remove all litter and droppings from floors, walls, and surfaces of facilities occupied or traversed by poultry. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with the disinfecting solution of 2 oz. per gallon of water for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure. Ventilate buildings, coops, and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES IN ANIMAL PREMISES

TO SANITIZE HOOF TRIMMING EQUIPMENT: Prior to application, pre-clean hoof trimming equipment and utensils before and after use on each animal with detergent and warm water or compatible cleaner to remove soil using a pre-scrape, pre-flush, or when necessary, pre-soak followed by a potable water rinse. To sanitize, prepare a 1 oz. of this product per 2 3/4 gallons of water (or equivalent use dilution) solution. Apply to pre-cleaned hard surfaces using a brush, cloth, mop, sponge or mechanical spray device or by immersion to thoroughly wet surfaces. Allow surfaces to remain wet for at least 3 minutes followed by adequate draining or air drying. Prepare fresh solution at least daily or when solution becomes visibly dirty.

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES: Remove all animals and feed from areas to be treated, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Close room off so fog is confined to room to be treated. Mix 2 gallons of this product to 2 1/2 gallons water. Wear a dust mist respirator when mixing the use solution and pouring it into the fogging apparatus. Insert the nozzle of the fogger through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of space in the room. Vacate the room of all personnel during fogging for a minimum of 2 hours of actual fogging and a minimum of 4 air exchanges per hour in the room. When fogging is completed ventilate buildings and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly clean all surfaces with soap or detergent and rinse with water.

SANITIZING INCUBATORS AND HATCHERS USING FOGGING DEVICES: Mix 24 ounces of this product to 122 ounces of water (or equivalent use dilution). Wear a dust mist respirator when mixing the use solution and pouring it into the fogging apparatus. Fog 3-8 ounces of this into setters and hatchers immediately after transfer. Repeat daily in setters and every 12 hours in hatchers. Discontinue hatcher treatments at least 24 hours prior to pulling the hatchers. Do not allow people to contact or breathe this fog. It is acceptable to fog setters and hatchers with 2 ounces per gallon of water solution of this product (or equivalent use dilution) on an hourly or every other hour basis. If this is done, fog for 30-90 seconds once per hour or once every two hours. When fogging is complete, ventilate buildings, and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse. Only for treatment of setters and hatchers after poultry/

chicks/eggs have been removed. Not for treatment of hatchers which contain chicks/eggs.

Note: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances must a room or building be entered by anyone within two hours of the actual fogging and a minimum of 4 air exchanges (ACH) per hour in the facility. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

FOGGING IS TO BE USED AS AN ADJUNCT TO ACCEPTABLE MANUAL CLEANING AND DISINFECTING OF ROOM AND MACHINE SURFACES.

BARBER/SALON

DISINFECTION / FUNGICIDE / VIRUCIDE* FOR BARBER / SALON TOOLS DIRECTIONS: Immerse pre-cleaned barber/salon tools such as combs, brushes, plastic rollers, razors, clipper and trimmer blades, tweezers, manicure/pedicure tools, clippers, scissors and other hard, non-porous salon instruments and tools in a 2 oz. per gallon of water solution. Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes visibly dirty.

DISINFECTING / FUNGICIDE / VIRUCIDE* GROOMING CLIPPERS: Remove hair, dandruff and dust particles prior to disinfecting the blades. Turn the clipper off occasionally during use and spray between the teeth of blades with a solution of 2 oz. per gallon of water. Allow surface to remain wet for at least 10 minutes. Rinse surfaces thoroughly. Then wipe dry with a clean soft cloth.

CLEANING HAIR CLIPPERS AND ELECTRIC SHEARS: While clipper/shear is running, hold in the downward position and spray 1 1/4 oz. per gallon of water solution of this product directly onto the blades two or three times to thoroughly wet the blades. Do not spray on the clipper case or drip into clipper housing. Turn off clipper/shear. Allow surface to remain wet for at least 10 minutes. Rinse surfaces thoroughly. Then wipe dry with a clean soft cloth. Lubricate as per clipper/shear manufacturer's instructions.

CLEANING BARBER / SALON SHEARS AND OTHER IMPLEMENTS: Spray shear/implement until thoroughly wet. Wipe away visible debris using a soft bristle brush or cloth. Turn off clipper/shear. Immerse pre-cleaned shear/implement into a container of a 1 1/4 oz. per gallon of water solution of this product for at least 10 minutes. Rinse surfaces thoroughly. Remove shear/implement and wipe dry. Use fresh solution at least daily or when immersion tank solution becomes visibly dirty.

Note: Plastic instruments can remain immersed until ready to use. Stainless steel shears and other metal instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle. Prolonged soaking will cause damage to metal instruments.

DISINFECTION / FUNGICIDE / VIRUCIDE* OF HARD, NON-POROUS SURFACES IN FOOTBATHS: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the footbath, drain the water and thoroughly clean all hard, non-porous surfaces with soap or detergent, then rinse with water. Saturate surfaces with a use solution of 2 oz. per gallon of water to exposed surfaces with a brush, cloth, mop, sponge or mechanical spray device. Brush or swab thoroughly and allow solution to stand for 10 minutes. For spray applications, use a coarse pump or trigger spray device. Do not breathe spray. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not use equipment until treatment has been absorbed, set or dried.

RESTROOM/BATHROOM

NON-ACID TOILET BOWL, URINAL & BATHROOM DISINFECTANT / CLEANER DIRECTIONS

FROM CONCENTRATE: Remove gross filth prior to disinfection. Add 1 1/4 oz. of this product directly into the toilet bowl and mix. Brush thoroughly over exposed surfaces and under the rim with a brush, cloth, mop, sponge or mechanical spray device. Repeat and allow solution to stand for 10 minutes and flush.

FROM USE SOLUTION: Pre-clean surface. Empty water out of toilet bowl or urinal and apply a 2 oz. per gallon use solution to exposed surfaces including under the rim with a brush, cloth, mop, sponge or mechanical spray device. For sprayer application, use a coarse pump or trigger spray device. Brush or swab thoroughly and allow solution to stand for 10 minutes and flush. Refill toilet bowl or urinal with water.

FOR HEAVY DUTY CLEANING: Pre-clean surface. Empty toilet bowl or urinal of water and apply 8-12 ounces of use solution to exposed surfaces including under the rim with a brush, cloth, mop, sponge or mechanical spray device. Brush or swab thoroughly and allow solution to soak to aid in soil removal. For sprayer application, use a coarse spray device and swab all areas after spraying. Refill toilet bowl or urinal with water.

FOR USE TO CLEAN AND DISINFECT SHOWER ROOMS, LOCKER ROOMS AND OTHER LARGE OPEN AREAS WITH FLOOR DRAINS:

1. Pre-clean heavily soiled areas.
2. Apply use solution of 1 1/4 oz. of this product with one gallon of water to floors, walls and ceilings, making sure not to over spray. To disinfect, all surfaces must remain wet for 10 minutes. **Special instructions for foam guns:** Pour concentrate into foam gun bottle and attach bottle to spray nozzle and ensure gun is attached to hose. **Note:** See foam gun instructions for more information. Make sure the setting is set for a 1:103 dilution. Once in place, squeeze the handle to disperse foam solution. To disinfect, all surfaces must remain wet for 10 minutes. *Foam guns not for use in California.*
3. Scrub surface using deck brush or other coarse material as necessary.

4. Rinse surfaces thoroughly and let air dry.

Note: Rinsing is not necessary unless floors are to be coated with finish or restorer. All food contact surfaces, such as appliances and kitchen countertops, must be rinsed with potable water. Do not use this product to clean or disinfect glassware, utensils, dishes or interior surfaces of appliances.

FUNGICIDAL / MOLD & MILDEW

FUNGICIDAL ACTIVITY: At 2 ounces per gallon use-level, (or equivalent use dilution) this product is effective against *Trichophyton mentagrophytes* – athlete's foot fungus, (a cause of Ringworm) and *Candida albicans* on inanimate, hard, non-porous surfaces in the presence of 5% blood serum and 400 ppm water hardness as CaCO₃ in locker rooms, dressing rooms, shower and bath areas, and exercise facilities. Pre-clean all surfaces prior to using this product. Treated surface must remain wet for 10 minutes. Allow solution to air dry on surface and repeat treatment every seven days or when new growth appears.

MOLD AND MILDEW CONTROL DIRECTIONS: This product controls the growth of mold and mildew, *Aspergillus niger* and their odors on hard, non-porous surfaces. To control the growth of mold and mildew and their odors on hard, non-porous surfaces, apply use solution of 1 1/4 oz. of this product per one gallon of water. Thoroughly wet all treated surfaces completely. Allow surface to remain wet for 10 minutes. Let surface air dry. Repeat application weekly or when growth or odor reappears.

TO CONTROL THE GROWTH OF MOLD AND MILDEW ON LARGE INFLATABLE NON-POROUS PLASTIC AND RUBBER STRUCTURES (animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 1/4 oz. of this product per one gallon of water for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not use equipment until treatment has been absorbed, set or dried.

TO CONTROL THE GROWTH OF MOLD AND MILDEW ON NON-POROUS ATHLETIC EQUIPMENT: For use on wrestling and gymnastic mats, athletic training tables, physical therapy tables, athletic helmets, wrestling/boxing headgear, athletic shoe soles. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 1/4 oz. of this product per one gallon of water for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not use equipment until treatment has been absorbed, set or dried.

HUMIDIFIER DIRECTIONS: Formulated for use in portable humidifiers. Thoroughly clean the hard, non-porous surfaces of the water tank and filters, before each heating season, or sooner if necessary. Add 2 oz. of this product per gallon of refill water. When you refill the tank, add 2 ounces of this product for every gallon of

water added. Not for use in heat or atomizing type humidifiers.

DEODORIZATION

GENERAL DEODORIZATION: To deodorize, add 1 1/4 ounce of this product to 1 gallon of water (or equivalent use dilution). Excess liquid must be wiped up or allowed to air dry.

CLEANING / DEODORIZING DIRECTIONS: Add 1 1/4 ounce per gallon of water (or equivalent use dilution) to clean and deodorize windows, mirrors and other surfaces. Apply solution with a brush, mop, cloth, sponge or mechanical spray device so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with sponge or cloth. Do not breathe spray. Allow surface to air dry or wipe up excess liquid.

FOR DEODORIZING GARBAGE CANS, GARBAGE TRUCKS, INDUSTRIAL WASTE RECEPTACLES AND GARBAGE HANDLING EQUIPMENT: It is especially important to pre-clean for the product to perform properly. Use 1 1/4 ounce per gallon (or equivalent use dilution) of this product or other suitable detergent system for pre-cleaning step. Then, apply a wetting concentration of 6 ounces of this product per gallon of water (or equivalent use dilution).

FOR DEODORIZING SEPTIC STORAGE TANKS: Pre-clean heavily soiled areas. When tanks are empty, pour 1 1/4 oz. per gallon of water (or equivalent use dilution) into septic storage tank on recreational vehicles, campers and boats to control odors. As tank fills with sewage and the vehicle is moving, this solution will mix and provide an adequate deodorizing solution for this use. This product is to be used on gray and black water tanks only. Check with local, state, or federal authorities before disposing of sewage in accordance to federal, state and local regulations for waste disposal.

AIR FRESHENER / AUTOMOTIVE USES: Effective on smoking and food odors (garlic, fish, onions, etc.), automobile odors from tobacco, musty carpet smell, and beverage smells will be eliminated. A solution of 1 1/4 oz. per gallon of water (or equivalent use dilution) will effectively neutralize odors. Spray or apply onto seats, carpets, headliner and ashtray or into trunk and all vents to eliminate odors from tobacco, food, beverage spills and musty carpet. For sprayer applications, use a coarse spray device. Allow to air dry.

RV HOLDING TANKS / RECREATIONAL VEHICLES: For toilet waste and holding tanks, cover bottom of holding tank with water and 1 1/4 to 2 ounces per gallon of water to deodorize. If odors return before time to empty, add 1 1/4 to 2 ounces to the tank. For kitchen waste, add 1 1/4 to 2 ounces to gray water tank as needed to control malodors created by dirty dishwasher.

FOR ODORS CAUSED BY DOGS, CATS AND OTHER DOMESTIC ANIMALS: Use on rugs, floors, walls, tile, cages, crates, mats, litter boxes, floor coverings, or any surface soiled by a pet. Test a small inconspicuous area

first. Blot problem area. Then follow directions for "General Deodorization".

GLASS CLEANING/DEODORIZING DIRECTIONS: Use 1 1/4 ounce per gallon solution (or equivalent use dilution) to clean and deodorize windows, mirrors, and glass surfaces. Use a coarse spray device. Spray 6-8 inches from surface. Rub with sponge or cloth. Do not breathe spray.

WATERBED CONDITIONER: When used as a waterbed conditioner, this product eliminates the odor caused by bacteria. Prevents bubbles, preserves plasticizers, conditions vinyl interior, sequesters minerals.

If bed has not been treated properly, drain bed completely. Add 15 gallons of water, mix vigorously, drain bed again. Fill bed with water and follow dosage directions.

Dosage: To eliminate the odor caused by bacteria, add 10 fluid ounces in a free flow waterbed of 90 to 180 gallon capacity. Add 10 fluid ounces in a waveless/fiber waterbed mattress of 90 to 180 gallon capacity. Repeat application every 4 to 6 months.

WATER/SMOKE DAMAGE RESTORATION

Effective against odor caused by water and/or smoke for home, institutional, industrial and hospital use. This product is particularly suitable for use in water damage restoration situations against odor caused by water on the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim, frame lumber, tackless strip and paneling. Saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation.

SEWER BACKUP & RIVER FLOODING: To rid affected area of odors caused by sewer backup and river flooding, dilute 2 to 4 ounces of this product per gallon of water allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affective areas with a sprayer using a coarse spray tip, before and after cleaning and extraction.

CARPETS, CARPET CUSHIONS AND OTHER POROUS MATERIALS SUCH AS SUB FLOORS, DRY-WALL, TRIM AND FRAME LUMBER, TACKLESS STRIP AND PANELING: Effective against odor caused by water damage. For water damage from a clean water source, extract excess water. Test hidden area for colorfastness. Dilute 2 to 4 ounces of the product per gallon of water, allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Apply directly with a sprayer using a coarse spray tip, to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a thorough extraction. Dry rapidly and thoroughly.

SPECIAL INSTRUCTIONS FOR CLEANING CARPET AGAINST ODORS CAUSED BY BACTERIA: This product can be used to deodorize carpets in industrial and institutional, commercial and residential areas such as homes, motel & hotel chains, nursing homes, schools

and hospitals. For use on wet, cleanable synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning. Test fabric for colorfastness.

For Portable Extraction Units: Mix 2 ounces of this product per gallon of water (or equivalent use dilution).

For Truck Mounted Extraction Machines: Mix 24 ounces of the product per gallon of water and meter at 4 gallons per hour.

For Rotary Floor Machines: Mix 4 ounces of this product per gallon of water and apply at the rate of 300-500 sq. ft. per gallon.

Do not mix this product with other cleaning products. Follow the cleaning procedures specified by the manufacturer of the cleaning equipment. After using this product, set the carpet pile and protect the carpet from furniture legs and bases while drying. Do not over wet. If applied to stain resistant nylon carpet, apply a fabric protector according to the carpet manufacturer's directions.

CARPET CLEANING / DEODORIZER AGAINST ODOR CAUSED BY BACTERIA, FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE: This product cleans and deodorizes the carpet by eliminating odors caused by bacteria. It can be used in industrial and institutional, commercial and residential areas such as homes, motels, hotel chains, nursing homes and hospitals.

Vacuum carpet thoroughly prior to application. Mix 2 ounces of product per gallon of water (or equivalent use dilution). Follow the injection and/or extraction procedures as specified for any conventional steam cleaning equipment you are using. For rotary floor machines, mix 16 ounces per gallon of water and spray on carpet at a rate of 300-500 sq. ft. per gallon.

For use on washable synthetic fibers. Do not use on wool. Test colorfastness of carpet before use. Apply diluted product to a small, concealed spot, then rub with a clean white cloth. If color changes or transfers to the cloth, a water-based product must not be used.

After using the product, set carpet pile in one direction with a stiff brush. Place aluminum foil under the legs of furniture while carpet is drying. Over-wetting can cause carpet to shrink. Manufacturer assumes no responsibility for over-wetting misuse.

Note: This product must not be mixed with other cleaning products.

OTHER USES

DISINFECTION / FUNGICIDE/MIRUCIDE* OF HARD, NON-POROUS SURFACES IN WHIRLPOOL UNITS: After using the whirlpool unit, drain and refill with fresh water to just cover the intake valve. Add 2 oz. per gallon of water. Briefly start the pump to circulate the solution. Turn off the pump. Wash down the unit sides, seat of the chair lift and any/all related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes. After the unit has been thoroughly disinfected, drain the solution from the unit and rinse

any/all cleaned surfaces with fresh water. Repeat for heavy soiled units.

CLEANSING OF BODY SURFACES AND BODY ORIFICES OF HUMAN REMAINS: To cleanse away skin secretions and accompanying malodor, to insure the removal of all soil and bloodstains, and to remove and reduce surface contamination, apply 2 ounces of this product to 1 gallon of water to the surfaces and body openings, natural or artificial. Bathe the entire body using sponge or washcloth. A soft brush may be employed on surfaces other than the face. Allow a 10-minute contact time for optimal results. Prepare a fresh solution for application of each remains.

FOR USE ON FINISHED FLOORS: To limit gloss reduction, use this product at 1 1/4 oz per gallon of water use dilution (or equivalent use dilution). Apply with a damp mop or auto scrubber. Allow to air dry.

COMMERCIAL FLORIST USE DIRECTIONS: To clean, disinfect and deodorize hard, non-porous surfaces in one step, prepare use solution by mixing 2 oz. per gallon of water. For heavy-duty use, mix 8 ounces per gallon of water.

Remove all leaves, petals, garbage and refuse. Pre-clean surfaces using pressurized water where possible. Apply use solution to hard, non-porous surfaces, thoroughly wetting surfaces as required, with a cloth, mop, brush, sponge or mechanical spray device.

For heavily soiled areas, a preliminary cleaning is required.

For sprayer applications, use a coarse pump or trigger spray device. Spray 6-8 inches from surface. Rub with brush, sponge, mop or cloth. Do not breathe spray.

Treated surfaces must remain wet for 10 minutes. Allow to air dry.

Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

CITRUS CANKER CONTROL AND CONTROL OF BACTERIA SPOT OF TOMATOES: *Not applicable in California:* For prevention of Citrus Canker and Bacterial Spot of Tomatoes Diseases through treatment of equipment. Effective against *Xanthomonas axonopodis* pv. *citri* (Citrus Canker) and *Xanthomonas campestris* pv. *vesicatoria* (bacteria spot of tomatoes) at 2060 ppm active quat. Treat all trucks, vehicles, and equipment thoroughly at a dilution ratio of 1:27. Treatment can be applied to trucks, attached trailers, field harvesting equipment, including cargo area, wheels, tires, under carriage, hood, roof, fenders and any other part of transportation equipment that can be taken into infested areas. To prevent the spread of Citrus Canker by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing, using maximum rate 2060 ppm quat. For sprayer applications use a coarse spray device. After use, all surfaces which come in contact with food or crop must be rinsed with potable water. Clothing must be either thoroughly rinsed or laun-

dered before reuse. Footwear must be rinsed before reuse.

DIRECTIONS FOR HOUSEHOLD USE

KITCHEN/BATHROOM/HOUSEHOLD CLEANING: Apply 2 oz. per gallon of water solution with a brush, cloth, sponge, mop or directly on surface with a mechanical spray device. If a mechanical spray is used spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Wipe the soiled area clean. This product is not to be used on dishware, glasses or eating utensils.

DISINFECT/DEODORIZE: To disinfect hard, non-porous surfaces such as floors, walls, counters, sinks, tubs, toilets, glazed tile, exterior surfaces of appliances, refrigerators or freezers, microwave exteriors, stove tops and hoods, tables, garbage pails, and faucets apply 2 oz. per gallon of water with cloth, sponge, mop or mechanical spray device. If a mechanical spray is used, spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Treated surface must remain wet for 10 minutes before wiping. For heavily soiled areas a pre-cleaning step is required. The pre-cleaning step must be done according to the instructions under Kitchen / Bathroom / Household Cleaning. Rinse with potable water after use on surfaces that come in contact with food.

SANITIZER DIRECTIONS FOR NON-FOOD CONTACT SURFACES

SANITIZATION OF HARD, NON-POROUS SURFACES IN WHIRLPOOL UNITS: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the whirlpool unit, drain the water and refill with fresh water to just cover the intake valve. Add 1 oz per 2 3/4 gallons of water (or equivalent use dilution) solution in the unit at this point. Briefly start the pump to circulate the solution. Turn off the pump. Wash down the unit sides, seat of the chair lift and any/all related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 3 minutes. After the unit has been thoroughly sanitized, drain the solution from the unit and rinse any/all cleaned surfaces with fresh water. Repeat for heavy soiled units. The unit is ready for reuse.

SANITIZATION OF EXTERIOR HOUSEHOLD SURFACES DIRECTIONS

Preparation of Use Solution: Add 1 oz per 2 3/4 gallons of water (or equivalent use dilution) to sanitize hard, non-porous exterior surfaces such as vinyl, plastic, sealed concrete, painted or sealed woodwork, and sealed stucco. Surfaces to be treated include house siding, decks, patios, walkways and driveways.

Application: Preclean surfaces. Apply solution with a brush, mop, cloth, sponge, mechanical spray device, or with a low-pressure (less than 60 psi) airless sprayer so as to wet all surfaces thoroughly. Treated surfaces must remain wet for 3 minutes. For sprayer applications, use a coarse spray device. Wearing suitable respiratory protective equipment and protective eyewear to control exposure to spray, pressure wash surfaces to thoroughly clean all treated areas using a high-pressure spray. Do not breathe spray. One-half gallon of diluted product will treat 200-300 sq ft of surface. User must wear protective eyewear as well as respiratory protective equipment.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Open dumping is prohibited. Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling Disposal: Non-refillable container. Do not reuse this container to hold materials other than pesticides or diluted pesticides. Triple rinse (or equivalent). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling if available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

Residue Removal Instructions: Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Fill the container 1/4 full with water and recap. Shake for 10 seconds. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.



NISUS[®]
CORPORATION

Nisus Corporation

100 Nisus Drive • Rockford, TN 37853 USA
800-264-0870

Nisus DSV and Nisus Corporation are trademarks or registered trademarks of Nisus Corporation.
©2020 Nisus Corporation #DSV-SL-031520a-SAL102110

SAFETY DATA SHEET



Health Emergencies: INFOTRAC® (800) 535-5053

1. PRODUCT AND COMPANY INFORMATION

Product Identity: Nisus DSV™

Recommended use: Disinfectant, virucide, sanitizer.

Manufacturer: Nisus Corporation
100 Nisus Drive
Rockford, TN 37853

Telephone: Phone: (800) 264-0870
Fax: (865) 577-5825

Emergency Phone: 800-535-5053 (INFOTRAC)

SDS Date of Preparation: 11/01/17

2. HAZARDS IDENTIFICATION

GHS Classification:

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

GHS Label Elements:



Signal Word: Danger

Statements of Hazard

Causes severe burns and eye damage.

Precautionary Statements

Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Alkyl (C ₁₂ -C ₁₆) dimethyl benzyl ammonium chloride	CAS 68424-85-1	2.200%
Octyl decyl dimethyl ammonium chloride	CAS 32426-11-2	1.650%
Diocetyl dimethyl ammonium chloride	CAS 5538-94-3	0.825%
Didecyl dimethyl ammonium chloride	CAS 7173-51-5	0.825%
Ethanol	CAS 64-17-5	<1%

4. FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Most important Symptoms: Causes severe skin burns and eye damage.

Indication of immediate medical attention/special treatment: Note to Physician: Treat symptomatically

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Dry chemical. Foam. Carbon dioxide (CO₂). Water spray (fog). Do not use water jet.
Specific hazards arising from the chemical: Not determined.
Hazardous Combustion Products: Toxic gases may be formed by fire.

Special Protective Equipment and Precautions for Fire-Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Isolate hazard area and restrict access. Eliminate all ignition sources. Ventilate affected area. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and Materials for Containment and Cleaning Up: Prevent further leakage or spillage if safe to do so. A vapor suppressing foam may be used to reduce vapors. Spill area may be slippery. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Dispose of contents/container to an approved waste disposal plant.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

Nonrefillable container. Do not reuse containers. Product residues in empty containers can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including Any Incompatibilities:

Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Strong oxidizers. Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary Alcohol	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³

Engineering Controls: Use explosion proof equipment. Mechanical Exhaust. Showers. Eyewash stations.

Eye/Face Protection: Splash proof chemical safety goggles. Face shield. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection: Wear rubber or neoprene gloves. Impervious apron. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection: No protective equipment is needed under normal use conditions. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Colorless to light straw liquid

Odor: Benzaldehyde

Odor Threshold: Not determined

pH: 12.4

Melting Point/Freezing Point: Not determined

Boiling Point/Boiling Range: Not determined

Flash Point: >94°C / 201°F

Evaporation Rate: Not determined

Flammability (Solid, Gas): Not determined

Upper Flammability Limits: Not determined

Lower Flammability Limit: Not determined

Vapor Pressure: Not determined

Vapor Density: Not determined

Specific Gravity: Not determined

Water Solubility: Soluble in water

Solubility in other solvents: Not determined

Partition Coefficient: Not determined

Auto-ignition Temperature: Not determined

Decomposition Temperature: Not determined

Kinematic Viscosity: Not determined

Dynamic Viscosity: Not determined

Explosive Properties: Not determined

Oxidizing Properties: Not determined

Density: 8.4 lbs/gal (Water=1)

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None under normal processing.

Hazardous polymerization does not occur.

Conditions to Avoid: Heat, flames and sparks.

Incompatible Materials: Strong oxidizers. Reducing agents.

Hazardous Decomposition Products: Hydrogen chloride. Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye Contact: Causes severe eye damage.

Skin Contact: Causes severe skin burns.

Inhalation: Do not inhale.

Ingestion: Do not ingest.

Component information:

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Proprietary Chloride	= 426 mg/kg (Rat)	-	-
Proprietary Alcohol	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4h
Proprietary Chloride	= 84 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms: Please see Section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity: Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Proprietary Alcohol	A3	Group 1	Known	X

Legend:

ACGIH (American Conference of Government Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity: Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Chemical Name: Proprietary Alcohol

Fish: 12.0 - 16.0: 96 h *Oncorhynchus mykiss* mL/L LC₅₀ static 13400 - 15100: 96 h *Pimephales promelas* mg/L LC₅₀ flow-through 100: 96 h *Pimephales promelas* mg/L LC₅₀ static

Toxicity to microorganisms: EC₅₀ = 34634 mg/L 30 min, EC₅₀ = 35470 mg/L 5 min

Crustacea: 9268 - 14221: 48 h *Daphnia magna* mg/L LC₅₀ 2: 48 h *Daphnia magna* mg/L EC₅₀ Static 10800: 24 h *Daphnia magna* mg/L EC₅₀

Persistence and Degradability: Not determined.

Bioaccumulative: Not determined.

Mobility: Not determined.

Chemical Name	Partition Coefficient
Proprietary Alcohol	-0.32

Other Adverse Effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
Proprietary Alcohol	Toxic, ignitable

14. TRANSPORTATION INFORMATION

Note: Please see current shipping paper for most up-to-date shipping information, including exemptions and special circumstances.

DOT, IATA & IMDG:

UN/ID No.: UN1903

Proper Shipping Name: Disinfectants, Liquid, Corrosive, n.o.s.
(Quaternary Ammonium Compound)

Hazard Class: 8

Packing Group: III

15. REGULATORY INFORMATION

International Inventories:

Chemical Name	Proprietary Chloride	Proprietary Chloride	Proprietary Alcohol	Proprietary Chloride
TSCA	Present	Present	Present	Present
DSL	X	X	X	X
NDSL				
EINECS	Present	Present	Present	Present
ELINCS				
ENCS	Present		Present	Present
IECSC	X	X	X	X
KECL	Present	Present	Present	Present
PICCS	X	X	X	X
AICS	X		X	X

Legend:

TSCS – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic substances List/Non-Domestic Substances List
EINECS/ELINCS – European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS – Japan Existing and New Chemical Substances
IECS – China Inventory of Existing Chemical Substances
KECL – Korean Existing and Evaluated Chemical Substances
PIGCS – Philippines Inventory of Chemicals and Chemical Substances
AICS – Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act): This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65: Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	California Proposition 65
Proprietary Alcohol	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Proprietary Alcohol	X	X	X

EPA Pesticide Registration Number: EPA Reg. No 10324-80-64405

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

Signal Word: Danger

Hazardous to humans and domestic animals. Keep out of reach of children.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Danger	Danger
Skin corrosion/irritation	N/A	Causes severe skin burns
Serious eye damage/eye irritation	N/A	Causes serious eye damage

16. OTHER INFORMATION

NFPA Rating:

Health = 3 Flammability = 0 Instability = 0
Special Hazards = Not determined

HMIS Rating:

Health = 3 Flammability = 0 Physical Hazard = 0
Personal Protection = B

SDS Revision History: 11/01/14: New SDS
03/15/20: Revised

WARRANTY DISCLAIMER

The information, data and recommendations contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof. With respect to this publication and the product related thereto, unless otherwise expressly provided by Manufacturer in writing, **MANUFACTURER MAKES NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

Remedy/Liability Limits

The exclusive remedy for losses or damages resulting from this publication or the related product (including claims based on contract, negligence, strict liability or other legal theories) shall be limited to, at Manufacturer's sole election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

Manufacturer shall not be liable for losses or damages resulting from use of this publication or handling or use of this product, **IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMIT, HEALTH RELATED DAMAGES OR INJURIES.**

The terms of this **Warranty Disclaimer** and **Remedy/Liability Limits** cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Manufacturer or the seller is authorized to vary or exceed the terms of this **Warranty Disclaimer** or **Limitation of Remedies** in any manner.



NISUS[®]
CORPORATION

100 Nisus Drive • Rockford, TN 37853 USA • (800) 264-0870



Insect Growth Regulator breaks the cycle of insect reproduction to control Fleas, Stored Product Pests, Cockroaches, Mosquitoes, Flies, Lone Star Ticks and other listed insect pests.

- Labeled for use in food areas of food handling establishments
- Works to break the life cycle of listed insects
- Effective indoors and outdoors
- May be applied when chickens are present
- Kills Aedes mosquito larvae before they become breeding, biting adults that may transmit Zika virus
- Reduces egg production in house flies and prevents development of larvae (maggots) into adults

ACTIVE INGREDIENT:

2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine.....	10.00%
OTHER INGREDIENTS	90.00%
	100.00%

KEEP OUT OF REACH OF CHILDREN
CAUTION

See inside for first aid and precautionary statements.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS:

- **DO NOT use this product in drinking water systems.**
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.
- DO NOT use this product in or on electrical equipment due to shock hazard.

READ AND FOLLOW ALL LABEL DIRECTIONS WHEN APPLYING THIS PRODUCT BEFORE USE.

NYGUARD® IGR Concentrate is a non-repellent Juvenile Hormone (JH) Mimic. It disrupts the normal development of the immature life stages of listed insects, with either complete or incomplete metamorphosis, preventing successful development of the adult stage. Depending upon the insect species and life stage at the time of exposure, the observed results can include: decreased egg viability, sterile adult insects incapable of reproduction, suspension of insect in immature life stages, reduced fitness of insect, behavioral changes, reduced egg production, morphological defects—deformed insects and death. When used in an Integrated Pest Management (IPM) program, NYGUARD IGR Concentrate breaks the reproductive cycle of listed insects, and aids in the prevention of insect resistance.

PESTICIDE RESISTANCE MANAGEMENT:

For resistance management, NYGUARD IGR Concentrate contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to NYGUARD IGR Concentrate and other Group 7C insecticides. The resistant individuals may dominate the insect population if these groups of insecticides are used repeatedly at the same use sites. Appropriate resistance management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of NYGUARD IGR Concentrate or other Group 7C insecticides, with different groups that control the same pests. Avoid application of more than the maximum use rate or the total number of consecutive sprays of NYGUARD IGR Concentrate per application interval.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
- Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
- Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.

- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM or further information or to report suspected resistance contact MGK representatives at 1-800-645-6466.

SPRAY DRIFT ADVISORIES:

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

STAINING: NYGUARD IGR Concentrate is generally non-staining. If staining is a concern, test final spray solution in an inconspicuous area prior to use, as some fibers or surfaces (such as vinyl siding) may be adversely affected by an application of this, or any liquid product.

Prior to using in commercial or residential food areas, please refer to the Food Handling Establishment Applications section of the label. The preparations prior to treatment and the cleanup after application described are also to be followed for residential use.

In hospitals, nursing homes or in any rooms occupied by the elderly or infirm, remove patients before treating rooms. If application is done as a surface spray, or crack and crevice application, patients may re-enter once the spray has dried. If application is a ULV fog or space spray, patients may return to the room after it has been thoroughly ventilated.

In institutions (including libraries, sports facilities, etc.) applications may be made while the facility is in use, provided treatment is not made in the immediate area where people are present.

USE SITES:

NYGUARD IGR Concentrate is effective when used in both indoor and outdoor areas such as:

Agricultural Buildings	Convenience Stores	Industrial Plants	Railroad Cars
Aircraft (cargo areas only)	Crawl Spaces	Institutional Buildings	Recreation Vehicles
Animal Housing Facilities	Crematoriums	Institutional Dining Areas	Recreational Areas Indoors
Animal Quarters	Cupboards	Institutions	Recreational Areas Outdoors
Animal Research Facilities	Dairies	Jails	Residential Homes
Apartment Buildings	Day Care Centers	Kennels	Restaurants
Apartments	Decks	Kitchens	Rooms
Appliances	Delicatessens	Laboratories	Rugs
Assisted Living Facilities	Dens	Lanais	Schools
Atriums	Detention Centers	Landscaping	Septic Tanks
Attics	Dining Halls	Landscaping	Ship Cargo Holds
Automobiles	Dog Houses	Lawns	Ships
Backyards	Dog Kennels	Libraries	Shutters
Bakeries	Dog Runs	Livestock Housing	Side Yards
Barns	Dormitories	Livestock	Soil
Basements	Drains	Production Facilities	Solariums
Bathrooms	Draperies	Living Rooms	Spas
Bed Frames	Dressers	Locker Rooms	Sports Stadiums
Bedrooms	Drive-ins	Manufacturing Plants	Stockyards
Boats	Drugstores	Marine Vessels	Storage Areas
Boiler Rooms	Egg Production Facilities	Mass Merchandising Stores	Stored Food Areas
Bookshelves	Equipment	Mattresses	Stored Food Warehouses
Bottling Facilities	Equipment Voids	Mausoleums	Stores
Box Springs	Fabric Storage Areas	Meat & Produce Canneries	Sun Porches
Boxcars	Factories	Meat Processing Plants	Sun Rooms
Breweries	Farm Buildings	Mess Halls	Supermarkets
Building Exteriors	Farms	Mobile Canteens	Swine Production Facilities
Building Foundations	Farmyards	Mobile Homes	Taverns
Building Perimeters	Feedlots	Morgues	Theaters
Buses	Floors	Mortuaries	Tobacco Plants and Warehouses
Cabinets	Flour Mills	Motels	Town Houses
Cabins	Food Handling Areas	Mulch	Trailers
Cafeterias	Food Packing Plants	Nursing Homes	Trains
Calf Hutches	Food Processing Plants	Office Buildings	Transportation Vehicles
Campers	Food Storage Areas	Offices	Tree Houses
Campsites	Food Warehouses	Other Public Buildings	Trucks
Candy Plants	Foundations	Outdoor Eating Establishments	Universities
Cargo Holds	Funeral Parlors	Pantries	Upholstered Furniture
Carpets	Furniture	Parks	Utility Room Indoor
Casinos	Garages	Patios	Utility Room Outdoor
Cemeteries	Garbage Areas	Pet Areas	Vending Machines
Cereal Processing Facilities	Garbage Cans	Pet Bedding	Verandas
Chests	Gas Stations	Pet Carriers	Veterinaries
Child Care Centers	Gazebos	Pet Grooming Parlors	Warehouses
Closed Porches	Grain Storage Facilities	Pet Quarters	Washrooms
Closets	Grass	Pet Sleeping Areas	Yards
Clothes Storage	Grocery Stores	Pet Stores	Zoos
Coffee Houses	Headboards	Play Houses	
Colleges	Health Clubs	Play Rooms	
Commercial Buildings	Homes	Porches	
Compost	Hospices	Poultry Houses	
Composting Sites	Hospitals	Prisons	
Condominiums	Hotels	Public Buildings	
	Indoor Eating Establishments		
	Industrial Buildings		

Pests in the Orders Acari, Anoplura, Blattodea, Coleoptera, Dermaptera, Diptera, Heteroptera, Hymenoptera, Lepidoptera, Orthoptera, Psocoptera, Siphonaptera, as well as certain other orders are susceptible in varying degrees to NYGUARD IGR Concentrate's active ingredient.

Specific pests that NYGUARD IGR Concentrate has shown to significantly disrupt the life cycle are:

Almond Moths	Dermestid Beetles	Madeira Cockroaches
American Cockroaches	Drain Flies	Mealworms
Angoumois Grain Moths	Drugstore Beetles	Merchant Grain Beetles
Ants	Elm Leaf Beetles	Midges
Asian Cockroaches	Face Flies	Mosquitoes
Asian Lady Beetles	Field Cockroaches	Moths
Australian Cockroaches	Filter Flies	Pennsylvania Wood Cockroaches
Beetles	Fleas	Phorid Flies
Black Carpet Beetles	Flies	Psocids
Booklice	Florida Stinkroaches	Rice Moths
Bottle Flies	Fruit Flies	Rice Weevils
Boxelder Bugs	Fungus Gnats	Sawtoothed Grain Beetles
Brown Cockroaches	German Cockroaches	Sewage Flies
Brownbanded Cockroaches	Granary Weevils	Silverfish
Cat Fleas	Ground Beetles	Small Dung Flies
Cheese Skippers	Hide Beetles	Smoky Brown Cockroaches
Cigarette Beetles	Horn Flies	Stable Flies
Cinereous Cockroaches	Horntails	Surinam Cockroaches
Clothes Moths	House Flies	Tobacco Moths
Cockroaches	Indian Meal Moths	Turkestan Cockroaches
Confused Flour Beetles	Khapra Beetles	Vinegar Flies
Copra Beetles	Lesser Grain Borers	Warehouse Beetles
Crickets	Litter Beetles	
Darkling Beetles	Lone Star Ticks	

MIXING INSTRUCTIONS:

Mix concentrate with water and apply with equipment capable of delivering coarse wetting surface spray, fogging (space spray/mist), spot, crack and crevice spray applications, professional foam applicator or with a paintbrush, roller or similar device. Partially fill the sprayer with water, add required amount of concentrate in sprayer, agitate and fill to final volume. Agitate before each spray.

Tank mixing: NYGUARD IGR Concentrate may be tank mixed with other registered pest control products, unless either product label prohibits tank mixing. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Make applications in accordance with those label instructions that are consistent for each product. To prepare the tank mix, add the tank mix partner first and make sure it is well mixed and in suspension, then add the correct amount of NYGUARD IGR Concentrate according to the label instructions below.

Do not tank mix with Vapona or Malathion. These products are antagonistic to NYGUARD IGR Concentrate's active ingredient.

Application Instructions: Use NYGUARD IGR Concentrate both indoors and outdoors as a general surface spray, ULV/fog or space spray application, spot treatment or crack and crevice application. Application may be made using power sprayers, hand pump sprayers, void injectors, in carpet shampoo, using a paintbrush, roller, professional foam applicator, or similar device.

Surface Applications: Apply diluted spray as a spot treatment, broadcast surface application and crack and crevice spray. Thoroughly treat areas where insects travel, breed, rest, hide or harbor. Special attention should be paid to applying spray solution to harborage and hiding places where conditions support insect population growth and reproduction.

ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION

NYGUARD IGR Concentrate may be applied as a fog or an ultra-low volume (ULV) application with equipment such as foggers, ULV equipment, mechanical misting sprayers or aerosol generators. To prepare the fogging solution, follow the equipment manufacturer's solution preparation instructions. For fogging applications, NYGUARD IGR Concentrate may be diluted with water or an approved petroleum distillate. Apply at a rate of 1 ml of NYGUARD IGR Concentrate per 1,000 cu. ft. of space to be treated. Remove all persons from the area to be treated. Close area to be treated. Shut off ventilation systems. Apply the product in the air and direct fog or mist toward all areas that may harbor target pests. After treatment, leave the room closed for 30 minutes or longer, as recommended by the labels of other products that may be tank mixed with NYGUARD IGR Concentrate. Do not remain in treated area after fogging application is completed. **Thoroughly ventilate area** before re-entry.

To treat voids in equipment and structures with ULV and fog injection systems (void injectors): Apply to harborage sites in wall voids and other inaccessible spaces in equipment and structures using injection equipment designed for deep void ULV (Ultra Low Volume) applications. Follow the injection equipment manufacturer's recommendations for the proper set up and air pressures. Place the applicator tip at or into the void space or crack and crevice to be treated. Apply in short bursts while keeping the tip in position. Allow the air stream to push the material deep into the space. For applications along baseboards, trim, molding, etc, move applicator tip along the crevice to be treated, applying a constant burst of material. Move the tip at a steady rate of one foot per second. Avoid applying to the point of runoff or drip. Ventilate area thoroughly before re-entry.

FOOD HANDLING ESTABLISHMENT APPLICATIONS

Apply NYGUARD IGR Concentrate as a general surface spray, space spray, spot and/or crack and crevice treatment in both food and non-food areas of food handling establishments where food and food products are held, processed, prepared and served. It also includes areas where food items are: received, prepared, packaged, and stored, as well as enclosed food processing systems (mills, dairies, etc.). Prior to application, remove or cover all food items in area to be treated. Do not apply directly to food or food-handling surfaces. In the home all food-processing surfaces and utensils should be covered during treatment or thoroughly washed before use. Food contact surfaces should be thoroughly washed with an effective cleaning compound and rinsed with potable water after use of the product.

SPOT OR CRACK AND CREVICE APPLICATION

Since active ingredient is stable and not volatile, spot, and/or crack and crevice treatment may be used while the facility is in operation, provided exposed food is covered or removed from the area being treated prior to application.

SPACE SPRAY AND GENERAL SURFACE APPLICATION

Space and general surface application may be used only when the facility is not in operation provided exposed food is covered or removed from the area being treated prior to application.

PANTRY/CABINETS, SMALL FOOD STORAGE AREAS

Apply as a surface spray, fog, crack and crevice spray, or spot treatment to pantry and cupboard shelves or other areas where food is stored. Prior to spraying, remove all food containers and foodstuffs. Do not replace food containers or foodstuffs until spray has dried.

STORED FOOD WAREHOUSES

Apply NYGUARD IGR Concentrate as a general surface spray, fog, spot, or crack and crevice treatment in warehouses where packaged food items are stored in such a way that direct contact with the foodstuff is not anticipated.

Integrated Pest Management in Schools

The health of school residents and long-term suppression of pests must be the primary objectives that guide pest control in school settings. To accomplish these objectives an IPM program must always look for alternatives first and use pesticides only as a last resort. There are many chemical products to choose from that are relatively benign to the larger environment and at the same time effective against target pests.

Consult the EPA Document: *IPM for Schools: A How-to Manual* to learn more. This and other resource materials are available at www.epa.gov/pesticides/ipm/.

NYGUARD IGR Concentrate may be used in schools and day care facilities. Unless it is an emergency situation, applications should be performed when only maintenance staff are present and the building is otherwise unoccupied. Do not apply to classrooms while in use. Vacate rooms prior to treatment. If application is a surface spray, spot or crack and crevice application, re-entry may occur once the spray has dried. If application is a ULV fog or space spray, re-entry may occur after the treated area has been thoroughly ventilated.

Always consult federal, state and local governing bodies to understand any and all requirements prior to application.

RATE CHART

Amount of NYGUARD IGR Concentrate per gallon of water to treat 1,500 sq. ft.	Amount of NYGUARD IGR Concentrate per unit area	
	1,000 sq. ft.	1,500 sq. ft.
4 ml per gallon (0.01%)	3.0 ml	4.0 ml
8 ml per gallon (0.02%)	5.5 ml	8.0 ml
12 ml per gallon (0.03%)	8.0 ml	12.0 ml

Alternate mixing instructions for outdoor power spraying	
18 ml per 50 gallons of water	0.001%
38 ml per 50 gallons of water	0.002%
56 ml per 50 gallons of water	0.003%

FOR INDOOR AND OUTDOOR CONTROL OF LISTED FLYING INSECTS SUCH AS MOTHS, MOSQUITOES, FLIES AND SMALL NUISANCE FLIES:

NYGUARD IGR Concentrate decreases the number of eggs laid by treated adults and reduces hatch rates. Larvae show physiological and functional defects leading to the inability to develop into normal adults. When used alone, treatment will result in a reduction in adult fly populations after 3 to 4 weeks, when previously hatched adult flies have died naturally. Apply spray dilution to known and suspected breeding sites (such as moist areas with decaying organic matter), as well as areas where these insects are known to travel, rest, hide or harbor. Make application following cleaning and sanitation practices. Tank mix NYGUARD IGR Concentrate with an adulticide to get immediate control of adult stages while inhibiting successful development of immature stages. Monitor insect population and repeat applications at 2 to 4 week intervals, if necessary, depending upon the severity of infestation. If application is being made in food areas, read and follow the "FOOD HANDLING ESTABLISHMENT APPLICATIONS" instructions in this label.

Surface Application (including Broadcast, Spot and Crack and Crevice): Apply NYGUARD IGR Concentrate in a surface application at the rate of 4 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft. Use up to 12 ml per 1,500 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Apply solution as a coarse, wetting spray to breeding and harborage sites. For drains, apply dilution into and around the drain and catch basin area. When possible, treat vertical surfaces surrounding breeding sites, where small flies tend to alight.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. To achieve uniform coverage apply NYGUARD IGR Concentrate as a ULV or fogging treatment, alone or tank mixed with an adulticide. Apply at the rate of 1 ml of concentrate per 1,000 cu. ft. of space to be treated. Direct application to areas where insects are known to travel, rest, hide or harbor.

Foam Application: For the control of Drain/Fruit Flies, combine NYGUARD IGR Concentrate at the rate of 4 to 8 ml concentrate with one gallon of diluent. To convert this diluent to a foam, add foaming agent at the manufacturer's recommended rate. Using a professional foam applicator, apply finished foam to areas of fly breeding such as drains, traps of sinks, bathtubs and in floor drains. For best results, foam should be applied thoroughly, ensuring all void areas and fly breeding material is treated. Follow the requirements of the foam equipment manufacturer.

Outdoor Application: Apply as a surface application (including Broadcast, Spot and Crack and Crevice) at the rate of 4 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,000 sq. ft. Use up to 12 ml per 1,000 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Alternate mixing directions for power spraying are to use 18 to 56 ml of concentrate per 50 gallons of water. Apply to surfaces where insects breed, travel, rest, hide or harbor. Treat known and suspected breeding sites on, under and around exterior surfaces of buildings, walls, window frames, around garbage cans, eaves, cracks and crevices, porches, decks, gazebos, patios, carports, garages, stagnant water, moist/shaded areas, fence lines, and other areas where target insects are active or may be hiding. Since NYGUARD IGR Concentrate is photo-stable, outdoor applications on soil surfaces will provide residual IGR activity, depending upon soil type and weather conditions.

FOR INDOOR AND OUTDOOR CONTROL OF LISTED CRAWLING INSECTS SUCH AS FLEAS, LONE STAR TICKS, BEETLES AND OTHER LISTED INSECTS:

NYGUARD IGR Concentrate breaks the reproductive cycle by acting on the immature life stages of fleas, lone star ticks, beetles and other crawling insects, preventing the successful development of adult insects. Flea eggs and flea larvae that contact treated areas will not develop into adult fleas. NYGUARD IGR Concentrate reduces egg production and hatch and inhibits the laying of eggs by engorged lone star tick nymphs. NYGUARD IGR Concentrate is a valuable component of an integrated program to control fleas, beetles, lone star ticks and other crawling insects. If application is being made in food areas, read and follow the "FOOD HANDLING ESTABLISHMENT APPLICATIONS" instructions in this label.

PREVENTIVE FLEA TREATMENT: NYGUARD IGR Concentrate can be used as a preventive treatment prior to the flea season. Application of this product in areas where pets and other animals are known to frequent and where previous infestations have been known to occur will reduce the emergence of adult fleas and also control immature stages of fleas. Indoor treatments of NYGUARD IGR Concentrate provide up to 7 months of residual flea control, so this early usage could reduce the need for conventional insecticides when used alone as directed. Apply as a surface application at the rate of 4 to 8 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft.

TREATING ESTABLISHED INFESTATIONS

Surface Application (including Broadcast, Spot and Crack and Crevice): Apply as a surface application at the rate of 4 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft. Use up to 12 ml per 1,500 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Treat all areas that may harbor target insects, such as carpets, furniture, pet sleeping areas and throw rugs. Treat under cushions of upholstered furniture. Use with an adulticide to get immediate control of adult insects. Do not allow children or pets to contact treated surfaces until spray has thoroughly dried.

In Conjunction with Carpet Shampoo: NYGUARD IGR Concentrate may be combined with a liquid, non-heat extracting, carpet shampoo application. Mix 4 ml of NYGUARD IGR Concentrate per gallon of diluted shampoo to be applied to carpet. Mix well and shampoo carpet as per instructions on the shampoo product label. Allow carpet to completely dry and vacuum thoroughly.

In Kennels and Doghouses: Apply as a surface application (including Broadcast, Spot and Crack and Crevice) at the rate of 4 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft. Use up to 12 ml per 1,500 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Remove animals before spraying. Apply in and around buildings, resting areas, walls, floor, animal bedding and run areas. Animals may be returned to treated areas when spray has thoroughly dried.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. To achieve uniform coverage apply NYGUARD IGR Concentrate as a ULV or fogging treatment, alone or tank mixed with an adulticide. Apply at the rate of 1 ml of concentrate per 1,000 cu. ft. of space to be treated. Direct application to areas where target insects are known to travel, rest, hide or harbor.

Outdoor Application: Apply as a surface application (including Broadcast, Spot and Crack and Crevice) at the rate of 4 ml in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,000 sq. ft. Use up to 12 ml per 1,000 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Alternate mixing directions for power spraying are to use 18 to 56 ml of concentrate per 50 gallons of water. Remove animals before spraying. Apply to listed outdoor areas where target insects are suspected or known to breed, travel, rest, hide or harbor. To help prevent insect infestation of buildings: Treat building exteriors, foundations and soil or other substrate adjacent to buildings. Application on soil surfaces will provide 30 to 60 days of IGR activity, depending upon insect type, soil type and weather conditions.

FOR CONTROL OF LISTED COCKROACHES, CRICKETS:

NYGUARD IGR Concentrate acts on the immature life stages and prevents nymphal cockroaches and crickets from developing into reproductive adults. Shortly after application of this concentrate, cockroaches with twisted wings and other deformities will begin to appear, indicating that NYGUARD IGR Concentrate has taken effect—those cockroaches are unable to reproduce. May be used in a program with cockroach baits such as Vendetta® Cockroach Gel Bait. One treatment works for 6

months against cockroach nymphs and crickets. If application is being made in food areas, read and follow the "FOOD HANDLING ESTABLISHMENT APPLICATIONS" instructions in this label.

Surface Application (including Broadcast, Spot and Crack and Crevice): Apply as a surface application at the rate of 12 ml in one gallon of water to treat 1,500 sq. ft. Apply diluted spray as a spot treatment, surface application and crack and crevice spray. Treat all areas where target insects are known or suspected to travel, rest, hide or harbor. Tank mix with an adulticide to provide immediate control of adult stages. Contact as many insects as possible with this spray. Special attention should be paid to hiding places such as beneath sinks, behind and beneath stoves and refrigerators, cracks and crevices, around garbage cans, cabinets, along the outside of baseboards, door and window sills, door and window frames and floors, around and on drains, pipes, plumbing, behind bookcases, storage and other utility installation areas, and the inside of cabinets and closets hitting insects with spray whenever possible. Repeat application in 6 months, or more frequently if necessary.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. To achieve uniform coverage apply NYGUARD IGR Concentrate as a ULV or fogging treatment, alone or tank mixed with an adulticide. Apply at the rate of 1 ml of concentrate per 1,000 cu. ft. of space to be treated. Direct application to areas where insects are known to travel, rest, hide or harbor.

Outdoor Application: Apply as a surface application (including Broadcast, Spot and Crack and Crevice) at the rate of 12 ml of concentrate in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft. For building perimeter applications, apply in a band 2-6 feet adjacent to and around the structure and apply to a height of 2-3 feet on the foundation where pests may be active or may find entrance. Apply spray on, around and beneath window frames, doors, garage doors, patios, decks, turf, landscaping, compost areas, garbage areas and other areas where target insects travel, feed, rest, hide or harbor. Alternate mixing directions for outdoor power spraying are to use 56 ml of concentrate per 50 gallons of water.

FOR CONTROL OF ANTS:

Surface Application Indoors: NYGUARD IGR Concentrate may be used as part of an integrated approach to control ants. Apply broadcast, spot or crack and crevice treatments of NYGUARD IGR Concentrate at the rate of 12 ml diluted in water per 1,500 sq. ft. to interior areas where ants are actively foraging and traveling. May be used in conjunction with baits and/or residual treatments. If application is being made in food areas, read and follow the "FOOD HANDLING ESTABLISHMENT APPLICATIONS" instructions in this label.

Outdoor Application: Apply as an outdoor surface application (including Broadcast, Spot and Crack and Crevice) at the rate of 12 ml of concentrate in one gallon of water (or sufficient volume of water to get adequate coverage) to treat 1,500 sq. ft. Alternate mixing directions for outdoor power spraying are to use 56 ml of concentrate per 50 gallons of water. For building perimeter applications, apply in a band 2-6 feet adjacent to and around the structure and apply to a height of 2-3 feet on the foundation where ants may travel or find entrance. Apply directly to known or suspected ant forage, trails and forage sites. Treat ant mounds or nests directly, with a wetting spray. NYGUARD IGR Concentrate may be used in a program with baits or in a tank mix combination with adulticide insecticide.

FOR CONTROL OF LISTED STORED PRODUCT PESTS:

(including Indian Meal Moths, Rice Moths, Tobacco Moths, Red Flour Beetles, Confused Flour Beetles, Lesser Grain Borers, Merchant Grain Beetles, Sawtoothed Grain Beetles, Warehouse Beetles, Cigarette Beetles, Dermestid Beetles). If application is being made in food areas, read and follow the "FOOD HANDLING ESTABLISHMENT APPLICATIONS" instructions in this label.

Surface Application (including Broadcast, Spot and Crack and Crevice): Apply as a surface application at the rate of 8 ml in one gallon of water to treat 1,500 sq. ft. Use up to 12 ml per 1,500 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Apply diluted spray as a spot treatment, surface application and crack and crevice spray. Treat all areas where target insects are known or suspected to travel, rest, hide or harbor such as cracks and crevices in walls and floors, under and between pallets, areas at the base of machinery and equipment, under furniture, in mop and equipment closets, behind cabinets, behind and under refrigerators, sinks, stoves, drawers under shelves and racks, around pipes and openings in floors and walls, along baseboards, in wall voids, and other areas where insects seek harborage. Since NYGUARD IGR Concentrate is stable and not volatile, spot, and/or crack and crevice treatment may be used while a food processing facility is in operation, provided exposed food is covered or removed from the area being treated prior to application. Tank mix with an adulticide to provide immediate control of adult stages. Contact as many insects as possible. Repeat application in 6 months, or more frequently if necessary.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. To achieve uniform coverage apply NYGUARD IGR Concentrate as a ULV or fogging treatment, alone or tank mixed with an adulticide. Apply at the rate of 1 ml of concentrate per 1,000 cu. ft. of space to be treated. Direct application to areas where insects are known to travel, rest, hide or harbor.

USE IN LIVESTOCK AND ANIMAL PRODUCTION

FOR CONTROL OF INSECT PESTS IN AND AROUND DAIRIES, LIVESTOCK AND OTHER ANIMAL HOUSING AND FACILITIES (including Kennels, Animal Shelters, Stables and Zoos)

NYGUARD IGR Concentrate may be used by pest control professionals and livestock producers in, on and around animal housing and facilities to control listed flying insect pests. NYGUARD IGR Concentrate mimics naturally occurring insect growth hormones, disrupting the reproductive processes of listed insects, resulting in reduced egg production, reduced egg hatch rates, disruption or inhibition of normal molting processes, deformity, sterile adults and death. NYGUARD IGR Concentrate effectively breaks the cycle of insect reproduction. It is an important component in an IPM program, and is a means to prevent or manage known resistant insect populations. Used as directed, NYGUARD IGR Concentrate will not harm beneficial insects such as predatory wasps.

Apply as a spot treatment; general surface broadcast treatment, ULV/ fog, spot or crack and crevice application to interior and exterior areas where insect pests collect, travel, rest, hide, harbor or breed. Apply when animals are not in the immediate area being treated. Animals may reenter treated area

once spray solution has thoroughly dried. Do not contaminate food, feed, potable water or watering equipment.

RATES TO CONTROL MOSQUITOES AND OTHER FLYING INSECTS

NYGUARD IGR Concentrate affects both adult and juvenile insect stages. It decreases the number of eggs laid by treated adults and reduces hatch rates. Larvae (maggots) show physiological and functional defects leading to the inability to develop into normal adults. When used alone treatment will result in a reduction in adult fly populations after 3-4 weeks, when previously hatched adult flies have died naturally. For faster results, NYGUARD IGR Concentrate may be tank mixed with an adulticide. Apply alone or tank mixed with an adulticide at the rate of 4 ml per 1,500 sq. ft. of surface area in sufficient volume of water to thoroughly wet the surface, although not to the point that runoff occurs. Use up to 12 ml of concentrate per 1,500 sq. ft. of surface for insect populations that are difficult to control or in conditions that make it difficult to achieve desired results.

RATES TO CONTROL LISTED CRAWLING INSECTS

Apply NYGUARD IGR Concentrate alone or tank mixed with an adulticide at the rate of 4 ml per 1,500 sq. ft. of surface in sufficient volume of water to thoroughly wet the surface, although not to the point that runoff occurs. Use up to 12 ml of concentrate per 1,500 sq. ft. of surface for insect populations that are difficult to control or in conditions that make it difficult to achieve desired results.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. NYGUARD IGR Concentrate may be applied with a ULV generator or fogger at a rate of 1 ml per 1,000 cu. ft. If used alone, dilute concentrate with water at the rate of 1 ml of concentrate with 1 fl. oz. of water or oil, and fog solution at a rate of 1 fl. oz. per 1,000 cu. ft. When tank mixing with a pyrethrum fogging concentrate, mix NYGUARD IGR Concentrate directly with the pyrethrum fogging concentrate solution. Do not remain in treated area after fogging. Keep facility closed for 1 hour and thoroughly ventilate prior to re-entry.

INTERIOR AND PERIMETER APPLICATION DIRECTIONS

Inspect and identify harborage and breeding areas. Treat all interior areas where crawling insects may collect, travel, rest, hide, harbor or breed, including vertical walls, ceilings, posts, pipes, conduit, around doors and windows, cages, stalls, stanchions, floors, under watering equipment and feeders, cracks and crevices along floors, animal bedding, manure and other known or potential breeding sites. Control will be enhanced when facilities are cleaned and interior applications are supplemented with exterior perimeter treatments. Apply solution to exterior perimeter of facility in a uniform band at least 1 foot up and 6 to 10 feet out from foundation. Apply around the exterior surfaces of doors and windows, overhead areas and other potential points of harborage or entry. If there are raised floors with soil or debris beneath them, be sure to treat the area beneath the floor.

EXTERIOR AND OUTDOOR APPLICATION DIRECTIONS

Inspect and identify known or suspected harborage and breeding areas. Treat known or potential exterior breeding sites such as garbage bins or refuse piles, around grain or feed storage facilities, soil and vegetation in fence lines, compost piles, manure piles, beneath watering equipment or feeders, in, around and under calf hutches, in and beneath outdoor cages, in corrals, farmyards and feed lots.

Reapply every 30 days, or when target insect populations return to economic threshold levels.

USE IN POULTRY PRODUCTION

FOR CONTROL OF INSECT PESTS IN AND AROUND POULTRY HOUSING AND FACILITIES – APPLICATIONS ARE PERMITTED WHEN POULTRY ARE PRESENT

NYGUARD IGR Concentrate may be used by pest control professionals and poultry producers in, on and around poultry houses and processing facilities to control listed flying insect pests. Applications can be made while poultry are present. NYGUARD IGR Concentrate mimics naturally occurring insect growth hormones, disrupting the reproductive processes of listed insects, resulting in reduced egg production, reduced egg hatch rates, disruption or inhibition of normal molting processes, deformity, sterile adults and death. NYGUARD IGR Concentrate effectively breaks the cycle of insect reproduction. It is an important component in an IPM program, and is a means to prevent or manage known resistant insect populations. Used as directed, NYGUARD IGR Concentrate will not harm beneficial insects such as predatory wasps.

Apply as a spot treatment; general surface broadcast treatment, ULV/ fog, spot or crack and crevice application to interior and exterior areas where insect pests collect, travel, rest, hide, harbor or breed. Do not contaminate food, feed, potable water or watering equipment. Initiate egg collection process prior to NYGUARD IGR Concentrate application.

RATES TO CONTROL MOSQUITOES AND OTHER FLYING INSECTS:

NYGUARD IGR Concentrate affects both adult and juvenile insect stages. It decreases the number of eggs laid by treated adults and reduces hatch rates. Larvae (maggots) show physiological and functional defects leading to the inability to develop into normal adults. When used alone treatment will result in a reduction in adult fly populations after 3 to 4 weeks, when previously hatched adult flies have died naturally. For faster results, NYGUARD IGR Concentrate may be tank mixed with an adulticide. Apply alone or tank mixed with an adulticide at the rate of 4 ml per 1,500 sq. ft. of surface area in sufficient volume of water to thoroughly wet the surface, although not to the point that runoff occurs. Use up to 12 ml of concentrate per 1,500 sq. ft. of surface for insect populations that are difficult to control or in conditions that make it difficult to achieve desired results.

RATES TO CONTROL LISTED CRAWLING INSECTS:

Apply NYGUARD IGR Concentrate alone or tank mixed with an adulticide at the rate of 4 ml per 1,500 sq. ft. of surface in sufficient volume of water to thoroughly wet the surface, although not to the point that runoff occurs. Use up to 12 ml of concentrate per 1,500 sq. ft. of surface for insect populations that are difficult to control or in conditions that make it difficult to achieve desired results.

Space Spray, Void Injection, ULV and Fog Application: Read and follow the "ULV AND FOGGING APPLICATION INSTRUCTIONS, INCLUDING SPACE SPRAY AND VOID INJECTION" in the Application Instructions section of this label. NYGUARD IGR Concentrate may be applied with a ULV generator or fogger at a rate of 1 ml per 1,000 cu. ft. If used alone, dilute concentrate with water at the rate of 1 ml of concentrate with 1 fl. oz. of water, and fog solution at a rate of 1 fl. oz. per 1,000 cu. ft. When tank mixing with a pyrethrum fogging concentrate, mix NYGUARD IGR Concentrate directly with the pyrethrum fogging concentrate solution. Do not remain in treated area after fogging. Keep facility closed for 1 hour and thoroughly ventilate prior to reentry.

INTERIOR AND PERIMETER APPLICATION DIRECTIONS:

Inspect and identify harborage and breeding areas. Treat all interior areas where crawling insects may collect, travel, rest, hide, harbor or breed, including vertical walls, ceilings, posts, pipes, conduit, around doors and windows, cages, stalls, stanchions, floors, under watering equipment and feeders, cracks and crevices along floors, animal bedding, manure and other known or potential breeding sites. Control will be enhanced when facilities are cleaned and interior applications are supplemented with exterior perimeter treatments. Apply solution to exterior perimeter of facility in a uniform band at least 1 foot up and 6 to 10 feet out from foundation. Apply around the exterior surfaces of doors and windows, overhead areas and other potential points of harborage or entry. If there are raised floors with soil or debris beneath them, be sure to treat the area beneath the floor.

EXTERIOR AND OUTDOOR APPLICATION DIRECTIONS:

Inspect and identify known or suspected harborage and breeding areas. Treat known or potential exterior breeding sites such as garbage bins or refuse piles, around grain or feed storage facilities, soil and vegetation in fence lines, compost piles, manure piles, beneath watering equipment or feeders, in, around and under calf hutches, in and beneath outdoor cages, in corrals, farmyards and feed lots.

Reapply every 30 days, or when target insect populations return to economic threshold levels.

FOR CONTROL OF LITTER BEETLES (such as Darkling, Hide and Carrion Beetles)

NYGUARD IGR Concentrate can be applied to litter, such as in poultry houses infested with Litter Beetles, to break the life cycle of these insect pests. Make uniform application of NYGUARD IGR Concentrate to litter at the rate of 4 ml of NYGUARD IGR Concentrate per 1,500 sq. ft. of surface in sufficient volume of water to thoroughly wet the surface, although not to the point that runoff occurs. Use up to 12 ml of concentrate per 1,500 sq. ft. of surface for insect populations that are difficult to control or in conditions that make it difficult to achieve desired results. NYGUARD IGR Concentrate can be used prior to bird placement and/or used as a mid-flock treatment while birds are present.

For effective prevention of beetle larvae in litter, remove old litter from facility as often as possible. After new litter has been placed, treat top of litter with NYGUARD IGR Concentrate and an adulticide. If litter is not changed between flocks, treat litter immediately prior to bird placement. Surface treatments immediately after animals are removed and again just prior to new animal placement are most effective. Adult egg-laying beetles can be killed with an adulticide such as Onslaught® FastCap Spider & Scorpion Insecticide. Application of adulticide to walls and floors at cleanout, before reintroduction of animals, will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls and around feeders.

Mid-flock treatments for litter beetle control: Mix NYGUARD IGR Concentrate with an adulticide approved for use while birds are present. Apply mixture to areas where beetles frequently occur, such as walls, supports, cages, under water lines, and around feeders.

Apply NYGUARD IGR Concentrate uniformly to floor area and to walls, posts, and cage framing (birds grown in cages only). Application should also be made into cracks and crevices around insulation. Reapply after each grow-out or sanitization procedure. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply NYGUARD IGR Concentrate or adulticide insecticides, or both, in a uniform band at least 1 foot up and 6 to 10 feet out from foundation. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

USE AS A MOSQUITO LARVICIDE

Not for use in natural holding waters or active waterways.

Not for wide area mosquito use. Do not apply using truck mounted sprayers or aerial application equipment.

Active only on the immature life stages of mosquitoes. Tank mix or use with an adulticide for immediate kill of biting (adult) mosquitoes.

RESIDENTIAL AND COMMERCIAL SITES

Apply using a backpack sprayer, ULV cold fogger, compressed air sprayer, power sprayer or handheld sprayer at a rate of 4 to 8 ml of NYGUARD IGR Concentrate per 1,500 sq. ft. in sufficient amount of water to get good coverage of target site. Use up to 12 ml per 1,500 sq. ft. for insect populations that are difficult to control or in conditions that make it difficult to get control of target pests. Alternate mixing instructions are 16–48 ml of concentrate per 50 gallons of water. Treat moist, shady areas where mosquitoes rest, harbor or breed, such as trees, shrubs, landscape plants, tall grass or plant foliage, non-drinkable standing water, gutters, drains, under decks, in-ground sprinkler heads, pet areas, fountains, birdbaths, landscape timbers, rocks, pavers, planters and fences. Tank mix NYGUARD IGR Concentrate with an adulticide to get immediate control of the biting adult stages, while inhibiting successful development of immature stages. Monitor insect emergence and re-apply every 28 days, or when insect populations reach treatment threshold levels.



NSF Listed. NSF No. 143749



EPA Reg. No. 1021-1603
EPA Est. No. 1021-MN-2
Rev. 1021-1221

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not induce vomiting because of aspiration pneumonia hazard. Obtain medical attention if irritation persists. Avoid contamination of food or feedstuffs.

Cover or remove all food and food processing surfaces. Thoroughly wash all food processing surfaces before reuse. After spraying in bakeries, meat packing plants, food processing plants, etc., all benches, shelving, equipment, etc. where exposed food will be handled must be washed with an effective compound followed by a potable water rinse to remove all traces of contamination. Food processing operations do not have to be stopped while applying a wet spray with care and in accordance with the directions and cautions above in those establishments which do NOT operate under Federal meat, poultry, shell egg grading and egg products inspection program.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT use this product in or on electrical equipment due to the possibility of shock hazard.

FIRST AID

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may call 1-888-740-8712.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Keep this product in its tightly closed original container, when not in use. Stored in a cool, dry (preferably locked) area that is inaccessible to children and animals and away from food and pet food.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Then offer for recycling if available or puncture and dispose of in a sanitary landfill.

Triple rinse as follows (For containers less than or equal to 5 gallons): Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse as follows (For containers that are greater than 5 gallons): Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.



Manufactured for MGK®.

©2023 MGK. All rights reserved.

7325 Aspen Lane North, Minneapolis, MN 55428

NYGUARD®, VENDETTA®, ONSLAUGHT® and MGK® - Registered trademarks of McLaughlin Gormley King Company

This page intentionally left blank



SAFETY DATA SHEET

Issue Date: 31-Oct-2019

Revision Date: 31-Oct-2019

Version: 3

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: NyGuard® IGR Concentrate

EPA Registration Number: 1021-1603

Other means of identification

Part Code: 2482A

Recommended use of the chemical and restrictions on use:

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:

McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA

FAX #:

(763) 544-6437

Telephone Number: (800) 645-6466, or (763) 544-0341

e-Mail Address: mgk-sds@mgk.com

Emergency telephone numbers:

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300

International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments:

MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B

Label elements

Emergency Overview

WARNING

Hazard statements

- H315 - Causes skin irritation
- H320 - Causes eye irritation

**Appearance:** light yellow**Physical state:** Liquid**Odor** Sweet**Precautionary Statements - Prevention:**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response:

P321 - Specific treatment (see Section 4/ First Aid).

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P362 - Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage:

P404 - Store in a closed container

Precautionary Statements - Disposal:

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS
--

Chemical Name	CAS No	Weight-%
Pyriproxyfen (NYLAR®)	95737-68-1	10.0

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable**Description of first aid measures:**

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact: Immediate medical attention is not required. Wash off immediately with soap and

plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.

Inhalation: Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms persist, call a physician. Immediate medical attention is required. Call a physician or poison control center immediately. Toxic by inhalation.

Self-protection of the First Responder: Use personal protective equipment as required.

Note to physicians: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂).

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles). Tight sealing safety goggles. Face protection shield.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties:**

Physical state: Liquid
Appearance: light yellow
Odor: Sweet
Odor threshold: No information available
Color (Gardner Scale): 3

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	5	@ 10% in H ₂ O
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	Tag Closed Cup

Evaporation rate:	No information available	
Flammability (solid, gas):	No information available	
Upper flammability limit (UEL):	No information available	
Lower flammability limit (LEL):	No information available	
Vapor pressure:	No information available	
Vapor density:	No information available	
Specific Gravity:	0.939	@ 20.0 °C
Water solubility:	No information available	
Partition coefficient; n-Octanol/ Water:	No information available	
Autoignition temperature:	No information available	
Decomposition temperature:	No information available	
Kinematic viscosity:	No information available	
Dynamic viscosity:	28 cPs	@ 22.0 °C
Refractive Index:	1.4723	@ 25.0 °C

Other Information:

VOC Content (%): 0

Miscibility/ Solubility:

Water: Partially miscible
Alcohol: Miscible
Aromatic solvents: Miscible
Petroleum distillates: Partially miscible

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD₅₀ >5,000 mg/kg (rat)
Dermal LD₅₀ >5,000 mg/kg (rabbit)
Inhalation LC₅₀ >5.05 mg/L, (rat; 4 hours)
Eye contact: Irritation cleared within 7 days. (rabbit).

Skin Contact:	Slight irritation at 72 hours. (rabbit).
Skin Irritation Index:	2.5
Sensitization:	Negative. (guinea pig).
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Chronic toxicity:	Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

15. REGULATORY INFORMATION

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched - 127087-87-0	1.0

SARA 311/312 Hazard**Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:**California Proposition 65:**

This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-1603

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information

required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION
--

<u>NFPA</u>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X

Chronic Hazard Star Legend * = Chronic Health Hazard

Issue Date: 31-Oct-2019	Revision Date: 31-Oct-2019	Revision Note: - SDS sections updated - 1 - 14 - 16
-----------------------------------	--------------------------------------	--

SDS Prepared By: Troy Azzivitto, MGK® Chemistry Department.
e-Mail Address: mgk-sds@mgk.com

Disclaimer: The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label,

it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet

ONEGUARD®

Multi MoA Concentrate

PYRIPROXYFEN	GROUP	7C	INSECTICIDE
PRALLETHRIN & LAMBDA-CYHALOTHRIN	GROUP	3A	INSECTICIDE

Specimen Label

- Kills Aedes, Anopheles and Culex mosquitoes
- Kills mosquitoes that may transmit West Nile virus, Chikungunya virus and Zika virus
- Kills fleas, ticks and house flies
- Controlled release technology
- Contains NyGuard® IGR
- Two modes of action
- Convenient all-in-one product



KEEP OUT OF REACH OF CHILDREN
CAUTION

See inside for first aid and precautionary statements.

ACTIVE INGREDIENTS:

Lambda-cyhalothrin.....	4.00%
Prallethrin	0.40%
Pyriproxyfen	1.30%
Piperonyl butoxide.....	6.00%
OTHER INGREDIENTS	88.30%
	100.00%

This product contains 0.336 lbs. Lambda-cyhalothrin, 0.0336 lbs. Prallethrin, 0.109 lbs. Pyriproxyfen and 0.503 lbs. PBO per gallon.

PESTICIDE RESISTANCE MANAGEMENT:

OneGuard® Multi MoA Concentrate contains a Group 3A and Group 7C insecticide. Insect biotypes with acquired resistance to Group 3A and Group 7C may eventually dominate the insect population if Group 3A and 7C insecticides are used repeatedly or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by OneGuard Multi MoA Concentrate or other Group 3A or 7C insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of OneGuard Multi MoA Concentrate or other Group 3A and 7C insecticides that have a similar target site of action, on the same insect species.

- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect population for loss of field efficacy.

Contact your local extension specialist, and/or manufacturer for insecticide resistance management and or IPM recommendations for the specific site and resistance pest problems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read and follow ALL label directions when using this product.

USE RESTRICTIONS:

READ ALL DIRECTIONS COMPLETELY BEFORE USE AND FOLLOW ALL DIRECTIONS AND PRECAUTIONS WHEN USING PRODUCT.

- In New York state, this product may not be applied to turf within 100 ft. of a coastal marsh or streams that drain into a coastal marsh.
- In New York state, for outdoor broadcast and foliar applications, do not apply more than 1 fl. oz. of OneGuard Multi MoA Concentrate per 1,000 sq. ft.
- **DO NOT SPRAY PETS**
- Take precautions to minimize spray drift.
- Do not spray in or near fish ponds or other bodies of water.
- Do not water the treated area to the point of runoff.
- Do not make applications while it is raining.
- Do not make outdoor broadcast applications when wind speed is 15mph or greater.
- Do not apply directly to sewers or drains, or any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.
- Not for wide area mosquito abatement using aerial application or truck-mounted cold aerosol ULV sprayers and thermal fogging devices.
- Not for use on plants being grown for sale or other commercial use. Not for use in nurseries, sod farms or golf courses.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. During application, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters.

- All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack and crevice treatments only, except for the following permitted uses:
 1. Applications to soil or vegetation around structures;
 2. Applications to lawns, turf, and other vegetation;
 3. Applications to building foundations, up to a maximum height of 3 feet above grade;
 4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
 5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed 1 inch in width;
 6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests as listed on this label.
- Do not apply in electrical conduits, junction and switch boxes, motor housings or other electrical equipment due to shock hazard from water-based spray.
- Do not mix this product with oil.
- Do not apply this product in any room being used as living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room. Restrict access until all surfaces are dry.
- Do not apply to classrooms when occupied.
- Do not apply to institutions (including libraries, sports facilities, etc.) in the immediate area when occupants are present.

USE RESTRICTIONS CONTINUED ON NEXT PAGE

USE RESTRICTIONS (continued)

- Keep all people and pets out of areas (indoors and outdoors) being treated and restrict access to these areas until all surfaces are dry. Cover fish aquariums and pets' food and water dishes before spraying. Do not allow spray to contact food or food-containing surfaces, feed or water supplies. Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated with this product.

Use only in areas described. For best results, follow directions for specific use areas.

PESTS CONTROLLED

Ants, aphids, Asian lady beetles, beetles, boxelder bugs, carpenter bees, carpet beetles, caterpillars, centipedes, chinch bugs, clothes moths, clover mites, cockroaches, crickets, daddy-longlegs, earwigs, fleas, flies (including cluster flies, crane flies, drain flies, fruit flies, house flies and phorid flies), firebrats, kudzu bugs, non-biting midges, mealybugs, millipedes, mites, mole crickets, mosquitoes, pillbugs, psocids, scales, scorpions, silverfish, sowbugs, spiders, springtails, spotted lanternflies, spruce spider mites, stink bugs (including brown marmorated), stored product pests, ticks, twospotted spider mites, wasps, whiteflies.

USE AREAS

For control of listed insects, indoors and outdoors, in food and non-food areas: backyards, lawns, trees, ornamental landscaping, recreational areas, parks and athletic fields. Also for use in and around homes, schools, warehouses, office buildings, apartment buildings, theaters, hotels, resorts, industrial buildings, motels, camp sites/campgrounds, aircraft cargo areas, kennels, deer pens and enclosures, zoos, wild animal parks, food processing plants, food service establishments, restaurants, outdoor dining areas, supermarkets and grocery stores, transportation equipment, truck trailers, railroad cars and food manufacturing and warehousing establishments.

This product should not stain or cause damage to painted or varnished surfaces, plastics, fabrics, or other surfaces where water applied alone causes no damage. Treat a small area and allow it to dry to determine whether staining will occur.

APPLICATION METHODS

- Broadcast spray treatment
- Foliar spray treatment
- Spot, crack and crevice treatment
- Structural perimeter treatment
- Surface spray treatment

APPLICATION EQUIPMENT

Includes, but is not limited to:

- Backpack mist blowers
- Backpack sprayers
- Handheld sprayers
- Mist sprayers
- Power sprayers

MIXING INSTRUCTIONS

OneGuard Multi MoA Concentrate should be diluted with water only and applied with hand-pressurized or power-operated equipment. Clean equipment before and after use. Agitate the container of OneGuard Multi MoA Concentrate before diluting by inverting it several times. For dilution, add approximately half the required water to the tank and then add the appropriate amount of OneGuard Multi MoA Concentrate. Agitate and slowly add the remaining water. Agitate the mixture thoroughly before using and occasionally during use to ensure dispersion. Avoid excessive application.

Active Ingredient	Final % Concentration of Active Ingredient		
	1.0 fl. oz. per gallon	1.5 fl. oz. per gallon	2.0 fl. oz. per gallon
Lambda-cyhalothrin	0.031%	0.046%	0.062%
Prallethrin	0.003%	0.005%	0.006%
Pyriproxyfen	0.010%	0.015%	0.020%
Piperonyl butoxide	0.047%	0.070%	0.092%
Total % Concentrate of all Active Ingredients	0.091%	0.136%	0.180%

TANK MIXING:

OneGuard Multi MoA Concentrate can be tank mixed with other currently registered products unless expressly prohibited by the product label. To ensure compatibility, conduct a small volume mixing test with the other products. Do not tank mix OneGuard Multi MoA Concentrate with products containing dichlorvos (DDVP).

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions and precautionary language of the products in the mixture (for example, first aid from one product, spray drift management from another.)

FOAM APPLICATIONS:

OneGuard Multi MoA Concentrate may be converted to foam, which can be used to treat structural voids to control or prevent listed pests harboring in walls, under slabs, or in other void areas.

OUTDOOR USE

Application Site	Pest	Dilution Rate In Water	Application Method(s)
Mosquito Habitats ¹	Mosquitoes	1.0 fl. oz. to 2.0 fl. oz. per gallon or 1.0 fl. oz. to 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft. In New York state, for outdoor broadcast and foliar applications, do not apply more than 1 fl. oz. of concentrate per 1,000 sq. ft.	<ul style="list-style-type: none"> • Broadcast spray treatment • Foliar spray treatment • Spot treatment
Ornamentals and Landscapes ²	Ants, aphids, beetles, boxelder bugs, carpenter bees, caterpillars, centipedes, clover mites, crane flies, flies ³ , mealybugs, millipedes, mites, psocids, scales, silverfish, sowbugs, spotted lanternflies, stink bugs (including brown marmorated), whiteflies	1.0 fl. oz. to 1.5 fl. oz. per gallon or 1.0 fl. oz. to 1.5 fl. oz. in sufficient water to cover 1,000 sq. ft. In New York state, for outdoor broadcast and foliar applications, do not apply more than 1 fl. oz. of concentrate per 1,000 sq. ft.	<ul style="list-style-type: none"> • Broadcast spray treatment • Foliar spray treatment • Spot treatment <p>In New York state, this product may not be applied to turf within 100 ft. of a coastal marsh or streams that drain into a coastal marsh.</p>
Lawns and Turf— Not for use on golf course turf	Ants, beetles, chinch bugs, cockroaches ³ , crane flies, crickets, fleas, flies, mole crickets, non-biting midges, spiders, springtails, ticks, wasps	0.6 fl. oz. per gallon or 0.6 fl. oz. in sufficient water to cover 1,000 sq. ft. In New York state, for outdoor broadcast and foliar applications, do not apply more than 1 fl. oz. of concentrate per 1,000 sq. ft.	<ul style="list-style-type: none"> • Broadcast spray treatment <p>In New York state, this product may not be applied to turf within 100 ft. of a coastal marsh or streams that drain into a coastal marsh.</p> <p>Do not apply more than 0.36 lbs. lambda-cyhalothrin per acre per year or 1.1 gallons of OneGuard Multi MoA Concentrate per acre per year.</p>
Exterior Walls, Foundations and Structures	Ants, Asian lady beetles, boxelder bugs, cluster flies, cockroaches ³ , crickets, daddy-longlegs, earwigs, flies, kudzu bugs, millipedes, non-biting midges, pillbugs, psocids, sowbugs, spiders, wasps	1.0 fl. oz. to 2.0 fl. oz. per gallon or 1.0 fl. oz. to 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	<ul style="list-style-type: none"> • Crack and crevice treatment • Spot treatment • Structural perimeter treatment • Surface spray treatment
	Scorpions, spruce spider mites, twospotted spider mites	2.0 fl. oz. per gallon or 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	<ul style="list-style-type: none"> • Crack and crevice treatment • Spot treatment • Structural perimeter treatment • Surface spray treatment

¹Do not spray in or near fish ponds or other bodies of water.

²A small-scale test is recommended to verify safety to ornamentals.

³For control of cockroaches, use 1 fl. oz. per gallon for standard treatments and 2 fl. oz. per gallon for severe infestations.

⁴For outdoor use only at the 0.3% Lambda-cyhalothrin concentration or 1.5 fl. oz. of OneGuard Multi MoA Concentrate per 1,000 sq. ft.

SPECIFIC USE DIRECTIONS:

MOSQUITOES:

Apply as a spray where mosquitoes may rest, harbor, or breed, contacting as many mosquitoes as possible. This includes, but is not limited to, tall grass, foliage, landscape plantings, building foundations, soil beneath decks, backyards and lawns. The ideal target area is the bottom 20 feet of trees. Pay particular attention to the underside of plant leaves and resting sites.

Apply using a backpack mist blower or other mechanical or pressurized equipment including, but not limited to, backpack sprayers and power sprayers. Do not make outdoor broadcast applications when wind speed is 15mph or greater.

Recommended to use 1 fl. oz. per gallon or 1 fl. oz. in sufficient water to cover 1,000 sq. ft. for standard light infestation or low pest pressure and 2 fl. oz. per gallon or 2 fl. oz. in sufficient water to cover 1,000 sq. ft. for heavy infestation or high pest pressure.

In New York state, for outdoor broadcast and foliar applications, do not apply more than 1 fl. oz. of OneGuard Multi MoA Concentrate per 1,000 sq. ft.

LISTED FLIES:

To control house flies and phorid flies, treat protected areas outdoors. Treat garbage cans, cracks and crevices containing organic matter, recycling bins and other sources that hold or contain organic matter.

To control fruit flies, treat surfaces around garbage cans and recycling bins.

CLUSTER FLIES:

Apply in late summer or early fall before flies are observed resting on surfaces. Apply thoroughly on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces. Apply enough diluted product to adequately cover the area without excessive dripping or runoff. Volume can vary depending on the surface type treated. Heavy precipitation prior to frost may require retreatments to maintain protection. In winter and spring when flies become active and are emerging, interior crack and crevice and void treatments can help reduce the infestation, along with ULV or surface application in infested attics or unoccupied lofts.

FLEAS & TICKS:

To control fleas and ticks, apply to kennels, runs and other areas where pets or other animals have been present. Treat the entire area and retreat as necessary to maintain control. Do not apply to pasture or cropland and do not allow animals and people to access treated areas until the application has dried. DO NOT SPRAY PETS OR OTHER ANIMALS WITH THIS PRODUCT. Treat pets with a product registered for use on animals.

For best outdoor control of ticks, apply spray to vegetation, brush, branches and other areas near habitation where ticks may harbor or frequent.

ANTS:

Make spot, crack and crevice and/or void applications where ants may be foraging and/or nesting, such as around doors or window frames, under sinks, around pipes, attic venting and other areas where ants may find access or nest.

FIRE ANT CONTROL:

Treat individual mounds with a drench application using a watering can. Use 1.2 fl. oz. OneGuard Multi MoA Concentrate per 2.5 gallons of water. Thoroughly soak each mound and a 3 ft. diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results apply in the early morning or late evening hours. Applications can be made on a monthly basis to maintain protection of treated areas.

CRAWLING PESTS SUCH AS COCKROACHES, CRICKETS, MILLIPEDES, EARWIGS, SILVERFISH AND SPIDERS:

Make spot and/or crack and crevice applications into harborage areas, cracks and crevice, entry points, under refrigerators, vending machines, around pipe and along baseboards.

EXAMPLES OF DILUTIONS FOR STRUCTURAL PERIMETER BARRIER APPLICATIONS

Application Volume: Gallons of Solution Per 1,000 sq. ft.	Application Rate: Fluid ounces of OneGuard Multi MoA Concentrate Per 1,000 sq. ft.	Fluid Ounces of OneGuard Multi MoA Concentrate to Dilute in Water According to Spray Tank Volumes		
		5 gallons	10 gallons	50 gallons
1 gallon	1.0 fl. oz. 1.5 fl. oz. 2.0 fl. oz.	5.0 fl. oz. 7.5 fl. oz. 10.0 fl. oz.	10.0 fl. oz. 15.0 fl. oz. 20.0 fl. oz.	50.0 fl. oz. 75.0 fl. oz. 100.0 fl. oz.
2 gallon	1.0 fl. oz. 1.5 fl. oz. 2.0 fl. oz.	2.5 fl. oz. 3.75 fl. oz. 5.0 fl. oz.	5.0 fl. oz. 7.5 fl. oz. 10.0 fl. oz.	25.0 fl. oz. 37.5 fl. oz. 50.0 fl. oz.
5 gallon	1.0 fl. oz. 1.5 fl. oz. 2.0 fl. oz.	1.0 fl. oz. 1.5 fl. oz. 2.0 fl. oz.	2.0 fl. oz. 3.0 fl. oz. 4.0 fl. oz.	10.0 fl. oz. 15.0 fl. oz. 20.0 fl. oz.

EXAMPLES OF DILUTIONS FOR SPRAY RIGS

Fluid ounces of OneGuard Multi MoA Concentrate to Dilute in Water	Gallons of Water	Square Feet of Coverage
2 fl. oz.	5 gallons	2,000 sq. ft.
4 fl. oz.	10 gallons	4,000 sq. ft.
8 fl. oz.	25 gallons	8,000 sq. ft.
16 fl. oz.	50 gallons	16,000 sq. ft.
32 fl. oz.	100 gallons	32,000 sq. ft.

INDOOR USE

Application Site	Pest	Dilution Rate In Water	Application Method(s)
Non-Food Handling	Ants, Asian lady beetles, beetles, carpet beetles, clothes moths, cockroaches, crane flies, drain flies, firebrats, fleas, flies, fruit flies, house flies, phorid flies, psocids, silverfish, spiders, stored product pests, ticks	1.0 fl. oz. to 2.0 fl. oz. per gallon or 1.0 fl. oz. to 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	Spot, crack and crevice treatment Surface spray treatment
	Scorpions	2.0 fl. oz. per gallon or 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	Spot, crack and crevice treatment Surface spray treatment
Food-Handling ⁵	Ants, cockroaches, crane flies, drain flies, flies, fruit flies, house flies, phorid flies, stored product pests	1.0 fl. oz. to 2.0 fl. oz. per gallon or 1.0 fl. oz. to 2.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	Spot, crack and crevice treatment Surface spray treatment

⁵Do not apply when food-processing facility is in operation or foods are exposed. Do not apply this spray to surfaces or utensils that may come into contact with food.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear protective safety glasses and the following additional PPE:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, and other handlers must wear the following:

- Long-sleeved shirt,
- Long pants,
- Chemical-resistant gloves made of barrier laminate, nitrile rubber, neoprene rubber, or Viton, and
- Shoes and socks.

In addition to the above PPE, applicators using a high-pressure hand wand in an enclosed area must wear at least a NIOSH-approved respirator with:

- A particulate filter with any N, R or P filter with NIOSH approval prefix TC-84A, or a NIOSH-approved powered air purifying respirator with HE filter with NIOSH approval number TC-21C.

In addition to the above PPE, applicators using handheld foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with:

- A NIOSH-approved respirator with an organic vapor cartridge with a combination N, R or P filter with NIOSH approval prefix TC-84A, or
- A NIOSH-approved gas mask with a canister with NIOSH approval number prefix TC-14G, or
- A powered air purifying respirator with organic vapor cartridge and combination HE filter with NIOSH approval number prefix TC-23C.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively foraging in the treatment area.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not apply this product around electrical equipment due to the possibility of shock hazard.

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE:

Keep this product in a tightly closed container, when not in use. Store in a cool, dry (preferably locked) area. Post as a pesticide storage area. Always store pesticides in the original container. Store away from food, feed, seed, fertilizers, and veterinary supplies. Place formulations on lower shelves and dry formulations above.

PESTICIDE DISPOSAL:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container.

For containers with capacities equal to or less than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available for reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For containers with capacities greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closers. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

ONEGUARD®
Multi MoA Concentrate

EPA Reg. No. 1021-2807
EPA Est. No. 1021-MN-2
Rev. 0520-1020

 **MGK®**

Manufactured for MGK®.
©2021 MGK. All rights reserved.
OneGuard® and NyGuard® are registered trademarks of McLaughlin Gormley King Company.
7325 Aspen Lane North, Minneapolis, MN 55428



SAFETY DATA SHEET

Issue Date: 30-Apr-2020

Revision Date: 30-Apr-2020

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: OneGuard® Multi MoA Concentrate

EPA Registration Number: 1021-2807

Other means of identification

Part Code: 3126

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:

McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA

FAX #:

(763) 544-6437

Telephone Number: (800) 645-6466, or (763) 544-0341

e-Mail Address: mgk-sds@mgk.com

Emergency telephone number

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300

International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments:

MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2B

Label elements

Emergency Overview

WARNING

Hazard statements

• H332 - Harmful if inhaled

- H320 - Causes eye irritation
- H302 - Harmful if swallowed



Appearance: Opaque , White

Physical state: Liquid

Odor Sweet - Solvent

Precautionary Statements - Prevention:

- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear eye protection/face protection

Precautionary Statements - Response:

- P321 - Specific treatment (see Section 4/ First Aid).
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice/attention
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth

Precautionary Statements - Storage:

- P404 - Store in a closed container

Precautionary Statements - Disposal:

- P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Prallethrin (ETOC®)	23031-36-9	0.40
Pyriproxyfen (NYLAR®)	95737-68-1	1.30
Lambda-Cyhalothrin	91465-08-6	4.00
Piperonyl Butoxide (PBO)	51-03-6	6.00
Petroleum distillates, hydrotreated light	64742-47-8	<10 *

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures

Eye contact:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin Contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion:	If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.
Inhalation:	Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Self-protection of the First Responder:	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
Note to physicians:	For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂).

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering

drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up: Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Supplier OEL
Petroleum distillates, hydrotreated light 64742-47-8	-	-	-	TWA: 100 ppm TWA: 525 mg/m ³

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Protective gloves are recommended, but are not required.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using do not eat, drink or smoke. Regular cleaning of equipment, work area

Considerations: and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Liquid
Appearance:	Opaque , White
Odor	Sweet - Solvent
Odor threshold:	No information available
Color (Gardner Scale):	No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	7.24	
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	Tag Closed Cup

Evaporation rate:	No information available
Flammability (solid, gas):	No information available
Upper flammability limit (UEL):	No information available
Lower flammability limit (LEL):	No information available
Vapor pressure:	No information available
Vapor density:	No information available
Specific Gravity:	1.015 @ 20.0 °C
Water solubility:	No information available
Partition coefficient; n-Octanol/ Water:	No information available
Autoignition temperature:	No information available
Decomposition temperature:	No information available
Kinematic viscosity:	No information available
Dynamic viscosity:	163 @ 20°C, 155 @ 40°C, cPs
Refractive Index:	No information available

Other Information:

VOC Content (%):	1.13
-------------------------	------

Miscibility/ Solubility:

Water:	Partially miscible
Alcohol:	Partially miscible
Aromatic solvents:	Partially miscible
Petroleum distillates:	Partially miscible

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD₅₀	550 mg/kg (rat)
Dermal LD₅₀	>5,000 mg/kg (rabbit)
Inhalation LC₅₀	>2.11 mg/L, (rat; 4 hours)
Eye contact:	Moderately irritating to the eyes. Irritation cleared within 7 days. (rabbit).
Skin Contact:	Slightly irritating. (rabbit).
Skin Irritation Index:	0.5
Sensitization:	Negative. (guinea pig).
Comment:	Toxicology data was bridged from a similar formula.
Piperonyl Butoxide: Carcinogenicity/ Oncogenicity:	Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Chronic toxicity:	Prolonged or repeated exposure increases the risk. Possible risk of irreversible effects. Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient; n-Octanol/ Water:
Prallethrin (ETOC®) 23031-36-9	4.49

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, Liquid, n.o.s.(Prallethrin, Pyriproxyfen, Lambda-Cyhalothrin, Piperonyl Butoxide)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Piperonyl Butoxide (PBO) - 51-03-6	1.0

SARA 311/312 Hazard**Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:**California Proposition 65:**

This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2807

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Harmful if swallowed
- Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties
HMIS	Health hazards 1	Flammability 1	Physical hazards 0	- Personal protection X

Chronic Hazard Star Legend * = Chronic Health Hazard

Issue Date: 30-Apr-2020	Revision Date: 30-Apr-2020	Revision Note: - SDS sections updated - 2 - 4 - 5 - 9 - 14 - 15 - 16
-----------------------------------	--------------------------------------	---

SDS Prepared By:
e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.
mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any

manner inconsistent with its labeling.

End of Safety Data Sheet

Onslaught®

MICROENCAPSULATED INSECTICIDE

Specimen Label

- Kills German cockroaches for up to 12 months (1 year) on indoor, unsealed concrete and/or cement surfaces only
- Kills mosquitoes, including the Aedes mosquito that may carry/transmit Zika virus

ACTIVE INGREDIENT:

(S)-cyano (3-phenoxyphenyl) methyl-(S)-4-chloro-alpha-(1-methylethyl) benzeneacetate..... 6.40%

OTHER INGREDIENTS* 93.60%
100.00%

* Contains petroleum distillates

KEEP OUT OF REACH OF CHILDREN

CAUTION

See inside for first aid and precautionary statements.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

- Remove pets and birds and cover fish aquariums before spraying.
- Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
- Do not apply to classrooms while in use. Do not apply in institutions (including libraries, schools, sports facilities, etc.) in the immediate area where occupants are present.
- DO NOT use this product as a fogger or apply it as a space spray.
- Do not apply in electrical conduits, junction and switch boxes, motor housings, or other electrical equipment due to shock hazard from water-based spray.
- Use only in areas described.
- Remove pets and cover fish aquariums and pet's food and water dishes before spraying.
- Keep all people (especially children) and pets out of areas being treated, and restrict access to these areas until all surfaces are dry.
- DO NOT leave product where children or pets can come into contact with it.

- DO NOT allow spray to contact food or food-containing surfaces, feed, or water supplies. Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated with this product. Food utensils such as teaspoons and measuring cups must not be used for food purposes after use with pesticides.
- Do not apply when food processing facility is in operation or foods are exposed.
- Do not apply this spray to surfaces or utensils that may come in contact with food.

For control of insects, indoors and outdoors, in the following food and non-food areas such as: homes, schools, warehouses, office buildings, apartment buildings, theaters, hotels, industrial buildings, motels, kennels, livestock housing, food processing plants, food service establishments, restaurants, supermarkets and grocery stores, transportation equipment, truck trailers, railroad cars, and food manufacturing and warehousing establishments. Also for use on back yards, lawns, trees, ornamental landscaping, recreational areas, parks and athletic fields.

INSECTS CONTROLLED:

Ants (excluding fire ants)
Aphids
Asian Lady Beetles
Bed Bugs
Beetles
Boxelder Bugs
Brown Marmorated Stink Bugs
Carpet Beetles
Centipedes
Cockroaches
Crickets
Dog Ticks
Earwigs
Firebrats
Fleas
Gnats
Hornets
Kudzu Bugs
Lice
Mealybugs
Midges
Millipedes
Mites
Mosquitoes
Pillbugs
Psocids
Scales
Scorpions
Silverfish
Spiders

Springtails
Swarming Termites
Ticks
Wasps
Waterbugs

FLYING INSECTS:

Blow Flies
Chiggers
Clothes Moths
Cluster Flies
Crane Flies
Deer Flies
Face Flies
Fruit Flies
Fungus Gnats
Gnats
Horn Flies
House Flies
Mosquitoes
Small Flying Moths
Whiteflies

BITING AND STINGING PESTS:

Bed Bugs
Bees
Biting Flies
Chiggers
Deer Flies
Deer Ticks
Dog Ticks
Fleas
Gnats
Hornets

Lice
Mosquitoes
Scorpions
Spiders
Ticks
Wasps
Yellowjackets

STORED PRODUCT PESTS:

Angoumois Grain Moths
Ants
Cadelles
Cigarette Beetles
Confused Flour Beetles
Dark Mealworms
Driedfruit Beetles
Drugstore Beetles
Flat Grain Beetles
Fruit Flies
Grain Mites
Grain Moths
Granary Weevils
Indian Meal Moths
Lesser Grain Borers
Maize Weevils
Meal Moth Larvae
Mediterranean Flour Moths
Merchant Grain Beetles
Red Flour Beetles
Rice Weevils
Rusty Grain Beetles
Sawtoothed Grain Beetles

Skippers
Spider Beetles
Spider Mites
Squarenecked Grain Beetles
Tobacco Moths
Yellow Mealworms

LIVESTOCK PREMISE PESTS:

Bed Bugs
Carrion Beetles
Chiggers
Darkling Beetles (lesser mealworms)
Deer Flies
Face Flies
Fleas
Flies
Hide Beetles
Horn Flies
Horse Flies
Lice
Litter Beetles
Mites
Mosquitoes
Stable Flies

WOOD DESTROYING PESTS:

Carpenter Ants
Carpenter Bees
Deathwatch Beetles
Furniture Beetles
Old House Borers
Powder Post Beetles

Roundheaded House Borers
Swarming Termites

PLANT PESTS:

Alfalfa Caterpillars
American Plum Borers
Annual Bluegrass Weevils
Aphids
Apple Maggots
Armyworms
Artichoke Plume Moths
Bagworms
Balsam Woolly Adelgids
Beet Armyworms
Deer Flies
Billbugs
Blueberry Spanworms
Brown Marmorated Stink Bugs
Cherry Fruit Flies
Cherry Fruitworms
Chinch Bugs
Codling Moths
Cowpea Curculios
Cranberry Fruitworms
Cranberry Weevils
Cucumber Beetles
Cutworms
Diamondback Moths
Elm Leaf Beetles
European Pine Sawflies
Fall Webworms
Filbertworms
Flea Beetles

Grasshoppers
Green Cloverworms
Green Fruitworms
Gypsy Moth Caterpillars
Hickory Shuckworms
Imported Cabbageworms
Japanese Beetles
Kudzu Bugs
Lace Bugs
Leaf Feeding Caterpillars
Leafhoppers
Leafminers
Leafrollers
Leaftiers
Lesser Appleworms
Lesser Peachtree Borers
Loopers
Lygus Bugs
Mexican Bean Beetles
Mites
Mole Crickets
Naval Orangeworms
Northern Pine Weevils
Oriental Fruit Moths
Painted Lady Caterpillars
Pea Weevils
Peach Twig Borers
Peachtree Borers
Pear Psyllids
Pear Slugs
Pecan Leaf Phylloxera
Pecan Nut Casebearers
Pecan Spittlebugs

Pecan Stem Phylloxera
Pecan Weevils
Pepper Weevils
Periodical Cicadas
Pickleworms
Pillbugs
Pine Chafers
Pine Coreid Bugs
Plant Bugs
Plum Curculio
Red Pine Sawflies
Redheaded Pine Sawflies
Red-striped Fireworms
Rindworms
Salt Marsh Caterpillars
Sap Beetles
Scales
Sod Webworms
Sowbugs
Spiders
Spittlebugs
Stink Bugs
Tarnished Plant Bugs
Tent Caterpillars
Thrips
Tobacco Hornworms
Tufted Apple Bud Moths
Velvet Bean Caterpillars
Walnut Husk Flies
Western Bean Cutworms
Whiteflies

Product information:

Onslaught® Microencapsulated Insecticide is a microencapsulated suspension concentrate containing 0.54 pound active ingredient per gallon.

Onslaught Microencapsulated Insecticide is designed to provide long residual activity against pests listed on this label when applied as surface or spot treatments, injected into wall voids, or as a crack and crevice spray in and around residential and commercial structures, as well as on turf and landscaping. Onslaught Microencapsulated Insecticide may be sprayed on any surface that will not be stained by water.

Application in food processing/handling establishments:

Application is permitted within food and non-food areas of food service and handling establishments (places other than private residences) including: restaurants, meat processing plants, grocery stores, bakeries, food manufacturing and processing establishments, and food warehousing establishments. Do not treat establishments where livestock feed is present.

Food areas include areas for receiving, storing, packing, canning, bottling, wrapping, boxing, preparing, edible waste storage, and enclosed processing systems, mills, and dairies. Serving areas are places where prepared foods are served, such as dining rooms, but excluding areas where foods may be prepared or held. Non-food areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets, and storage after canning or bottling.

General surface applications: Do not apply Onslaught Microencapsulated Insecticide as a general surface application in food areas of the facility when the facility is in operation or food is exposed. Do not apply directly to food. Cover or remove all food and food processing equipment prior to application. After spraying in meat packing plants, bakeries, and other food processing plants, wash with an effective cleaning compound, and then rinse all equipment, benches, shelving, etc. where exposed food will be handled with potable water. Repeat applications as needed, but do not exceed more than one (1) application every (14) days.

Spot or crack and crevice applications: Spot or crack and crevice applications may be made while facility is in operation, provided exposed food is covered or removed from the area being treated. Do not apply directly to food or food-handling surfaces. Repeat applications as needed, but do not exceed more than one (1) application every (14) days.

MIXING INSTRUCTIONS

Mix Onslaught Microencapsulated Insecticide with water and apply with hand pressurized or power operated sprayers. Shake container of Onslaught Microencapsulated Insecticide before diluting. Clean spray equipment before use. For dilution, add approximately half the required water to spray tank and then add the appropriate amount of Onslaught Microencapsulated Insecticide. Agitate, and slowly add the remaining water. Agitate spray thoroughly before using and also occasionally during use to ensure dispersion. If spray filter screens are used, they should be 50 mesh or larger. Use 0.5 fl. oz. of Onslaught Microencapsulated Insecticide in 1 gallon of water to make a spray mix containing 0.025% active ingredient. Use 1.0 fl. oz. per gallon of water to make a spray containing 0.05% active ingredient. Use 0.025% solution for light infestations or as a maintenance control rate. Use 0.05% for heavy infestations or as an initial clean-out rate. Apply two-second bursts of spray per square foot of area being treated. Do not apply excessively; dampen surfaces but not to the point of saturation or runoff. Only dilute Onslaught Microencapsulated Insecticide with water.

Formula for determining the active ingredient content of the finished spray mixture:

The following formula may be used to determine the percent active ingredient that is in the sprayer tank after mixing Onslaught Microencapsulated Insecticide:

$$\frac{(6.4) \times (\text{number of fl. oz. of Onslaught Microencapsulated Insecticide added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \% \text{ active ingredient of spray mix}$$

Tank mixing:

Onslaught Microencapsulated Insecticide may be tank mixed with an insect growth regulator such as NyGuard® IGR Concentrate or pyrethrum-containing products or any other currently registered pesticides unless expressly prohibited by the product label. The resulting tank mix may be applied in areas where these products are allowed to be sprayed. Do not tank mix Onslaught Microencapsulated Insecticide with products containing dichlorvos (DDVP).

INDOOR USE

Application rates for indoor structural pests:

Pests	Light Infestation		Heavy Infestation		Application Rate of Mixed Solution
	% Active Ingredient	Dilution Rate in Water	% Active Ingredient	Dilution Rate in Water	
Listed Crawling Insects	0.025%	0.5 fl. oz./gallon	0.050%	1.0 fl. oz./gallon	1 gallon/ 1,000 sq. ft.
Listed Flying Insects					
Application Methods	Apply as a broadcast surface spray, crack and crevice treatment, spot treatment, or injection into wall voids.				

Listed crawling insect pests indoors:

Apply as a coarse, wet spray to surfaces where these pests are normally found. Treat floors, baseboards, around doors and windows, in attics, crawl spaces, eaves, corners, closets, walls, utility pipes, storage areas, and all cracks and crevices. Treat underneath sinks, dishwashers, refrigerators, stoves, the underside of shelves, drawers, cabinets, areas behind pipes, and in all places where these insects shelter. Contact as many insects as possible with direct spray. Repeat applications as needed, but do not exceed more than one (1) application every seven (7) days.

For Ant control indoors:

Apply to ant trails, around garbage receptacles, and near food sources. Also apply around doors and windows and wherever these pests may find entrance to the structure. Remove sources of food through basic hygiene practices whenever possible.

Listed flying insect pests indoors:

Treat insect resting areas such as walls and ceilings, screens, around windows, doors, and light fixtures, and other surfaces that attract flying insects. Initiate treatments at the beginning of fly season, and repeat treatments during periods of heavy infestation.

Listed stinging insect pests indoors:

Apply spray to nests late in the evening when stinging insects are at rest. Thoroughly spray nest, nest entrance, and surrounding areas where insects land or walk. Treat around doors and windows, in attics, crawl spaces, and possible harborage sites or points of entry.

For control of Brown Dog Ticks:

Thoroughly apply as a spot treatment to infested areas such as pet beds and resting areas, nearby cracks and crevices, along and behind baseboards, window and door frames, and localized areas of floor and floor coverings where these pests may be present. DO NOT SPRAY PETS WITH THIS PRODUCT. Treat dogs and cats with a product registered for use on animals.

For control of Fleas:

Thoroughly apply as a fine particle broadcast spray to infested rugs, carpets, and pet resting areas. Prior to treatment, cover aquariums and fish bowls. Remove animals from the area being treated. Do not permit humans or pets to contact treated surfaces until spray has dried. Remove and replace pet bedding with clean, fresh bedding after treatment. DO NOT SPRAY PETS WITH THIS PRODUCT. Treat dogs and cats with a product registered for use on animals.

To control Bed Bugs:

Thoroughly clean and sanitize mattresses and box springs. Treat mattresses and box springs with an approved pesticide, such as a pyrethrin aerosol. Apply Onslaught Microencapsulated Insecticide as a spot treatment to potential harborage sites and migration paths, and cracks and crevices, around baseboards, floorboards, headboards, and walls.

For control of stored product pests:

Spray thoroughly around and into floor drains, non-food conveyors, benches, pipes, pallets, moist areas, storage racks, pieces of equipment, and other areas where stored product pests may be found. Tank mix or sequential use of an insect growth regulator, such as NyGuard IGR Concentrate, is recommended to break the insect reproduction cycle. Do not apply this spray to surfaces or utensils that may come in contact with food, since excessive residues in food may result.

To treat voids in equipment and structures:

To kill insects harboring in wall voids and other inaccessible spaces in equipment and structures, use injection equipment designed for deep void applications. Follow the injection equipment manufacturer's recommendations for proper set up and air pressures. Place the applicator tip at or into the void space to be treated. For inaccessible voids, it may be necessary to drill an access hole(s). Inject product into the void space in short bursts, allowing air pressure to push insecticide deep into the space. Do not apply to the point of runoff or drip. Ventilate area thoroughly before re-entry. Do not reapply more than every fourteen (14) days.

To kill the accessible stages of listed granary insects:

Use this concentrate to treat grain storage facilities, and other listed areas, for stored product pest control. For control of exposed adult and immature stages of stored product pests, apply to cracks, crevices, and other surfaces where the pests have been seen or have harborage. Treat areas where products are stored before filling with the product. Apply at the rates listed above, using one gallon of spray mix per 1,000 square feet of surface area to be treated. Cleaning all areas prior to use will increase levels of control. Remove and destroy foodstuffs infested with pests.

Repeat application as needed, but do not exceed more than one application every fourteen (14) days.

USE IN AND AROUND LIVESTOCK HOUSING

For use in and around unoccupied areas of livestock facilities, such as, but not limited to: barns, cow and calf pens and hutches, dairy barns and milk rooms, hog barns, horse barns, sheep barns, poultry houses, and rabbit hutches. Do not contaminate milk, food, or drinking water. Remove animals from area being treated. Cover feeders and waterers. Do not apply or allow insecticide to drift onto animals. Do not allow animals to enter treated areas until spray solution has dried.

Pests	Light Infestation		Heavy Infestation	
	% Active Ingredient	Dilution Rate in Water	% Active Ingredient	Dilution Rate in Water
Listed Crawling Insects * Including Litter Beetles	0.025%	0.5 fl. oz./gallon or sufficient water to cover 1,000 sq. ft.	0.050%	1.0 fl. oz./gallon or sufficient water to cover 1,000 sq. ft.
Listed Flying Insects				
Application Methods	Apply as a general surface spray, crack and crevice treatment, spot treatment, or injection into wall voids.			

Listed crawling insect pests in livestock and poultry premises:

Apply as a general surface, spot treatment, and/or crack and crevice treatment. Apply to floors and vertical and overhead surfaces where crawling insects are or may be present. Treat stanchions, pipes, windows, doors, posts, cage framing, gates, under (but not in) feeders, and other areas where insects hide or congregate. To reduce immigration of insects, make a perimeter treatment around the outside of building foundations. Apply in a uniform band 1 to 3 feet up the exterior foundation wall and 3 to 6 feet out from the foundation.

Litter Beetle control in livestock and poultry premises:

To control Litter Beetles (darkling, hide, and carrion beetles), apply Onslaught Microencapsulated Insecticide to walls and floors at cleanout and before reintroduction of animals. Treat areas where beetles frequently occur, such as walls, supports, cages, cage framing, stalls, and around feeders. To reduce immigration of insects, make a perimeter treatment around the outside of building foundations. Apply in a uniform band 1 to 3 feet up the exterior foundation wall and 3 to 6 feet out from the foundation.

Listed flying insect pests in livestock and poultry premises:

For residual control of listed flying insects, treat insect resting areas such walls, ceilings, screens, around windows, doors, light fixtures, and other surfaces that attract flying insects. Initiate treatments at the beginning of fly season and repeat treatments during periods of heavy infestation.

OUTDOOR USE

Use Restrictions:

- Do not spray in or near fish ponds or other bodies of water.
- Do not water the treated area to the point of runoff.
- Do not make applications during the rain.
- Do not apply directly to sewers or drains, or any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.
- Not for use on plants being grown for sale or other commercial use. Not for use in nurseries, sod farms or golf courses.
- All outdoor applications, if permitted elsewhere on this label must be limited to spot or crack and crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label:
 1. Applications to soil or vegetation, as listed on this label;
 2. Applications to lawns, turf, and other vegetation, as listed on this label;
 3. Applications to the side of a building, up to a maximum height of 3 feet above grade;
 4. Application to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
 5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
 6. Applications made through the use of a coarse, low pressure spray to only those

portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters in order to control occasional invaders or aggregating pests as listed on this label.

Application Rates for Outdoor Pests

	Concentration of active ingredient	Dilution rate in water	Application method(s)
Treating exterior walls, foundations and structures	0.025 to 0.050%	0.5 to 1.0 fl. oz./gallon or 0.5 to 1.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	Apply as a coarse, wet spray <ul style="list-style-type: none"> • General surface spray • Crack and crevice treatment
Treating nests and harborage areas of listed stinging insects	0.050%	1.0 fl. oz./gallon or 1.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	<ul style="list-style-type: none"> • Spot treatment
To control Swarming Termites and wood destroying pests	0.050%	1.0 fl. oz./gallon or 1.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	
Treating ornamental trees and landscapes	0.005 to 0.050%	0.1 to 1.0 fl. oz./gallon or 0.1 to 1.0 fl. oz. in sufficient water to cover 1,000 sq. ft.	Apply as a spray <ul style="list-style-type: none"> • Broadcast spray treatment • Foliar spray treatment
Mosquito breeding sites	0.025%	0.5 fl. oz./gallon or 0.5 fl. oz. in sufficient water to cover 1,000 sq. ft.	
Treating lawns and turf	0.005 to 0.050%	0.1 to 1.0 fl. oz./gallon or 0.1 to 1.0 fl. oz. in sufficient water to cover 1,000 sq. ft. or 4.3 to 43 fl. oz. per acre	Apply as a coarse, wet spray <ul style="list-style-type: none"> • Broadcast spray treatment

Treating exterior walls, foundations and structures:

To control infestations of listed pests, treat exterior surfaces of buildings, walls, window frames, around garbage cans, eaves, cracks and crevices, porches, decks, gazebos, patios, carports, garages, fence lines, and other areas where pests are active or may be hiding.

To help prevent insect infestation of buildings: Treat a 2 to 6 foot band of soil or other substrate adjacent to buildings. Treat building foundation to a height of 2 to 3 feet. Treat exterior walls, eaves, cracks and crevices, and other areas where listed pests are active, and may find entrance into building.

Apply with sufficient water to adequately cover the area being treated, but do not allow dripping or runoff to occur. Alternate mixing directions are to use 2 to 4 fl. oz. of concentrate per 50 gallons of water.

Listed stinging insect control outdoors:

For listed stinging insects, apply spray solution to nests and harborage areas late in the evening when stinging insects are commonly at rest. Thoroughly spray nest, nest entrance, harborage sites, and surrounding areas where insects land or walk. For nests inside walls, inject sufficient spray to treat nest. Do not use in areas where an electrical shock hazard exists. For applications made when pests are active, applicator should wear protective equipment as required. Repeat application when there are signs of renewed insect activity.

For Yellowjacket control, Onslaught Microencapsulated Insecticide can be mixed with baits in traps. Follow trap instructions for preparation of bait.

Insect control in ornamental trees and landscapes:

For residential and commercial trees, shrubs, ground covers, and bedding and foliage plants that will not be harvested for food, apply Onslaught Microencapsulated Insecticide in appropriate volumes of water to obtain thorough coverage. Apply as a full-coverage foliar spray, applying to the point of drip but not runoff. Treat active soil pests with an application to surrounding soil. Repeat treatments as necessary to achieve control, using higher application rates as pest pressure and foliage area increases. Repeat applications as necessary, but no more than once every seven (7) days. Certain plants may be sensitive to the final spray solution. A small-scale test is recommended to verify safety to ornamental plants. Spray and observe for one (1) week prior to application of an entire planting.

Insect control on lawns, turf grass, and turf:

For best results, lawn or turf grass should be mowed 1 to 2 days before spraying. Treat with spraying equipment or a hand sprayer. Use application volumes of up to 10 gallons per 1,000 sq. ft. to get uniform coverage when treating dense grass foliage. For low volume applications using less than 2 gallons of spray solution per 1,000 sq. ft., immediate irrigation with at least 0.25 inch of water is recommended to improve effectiveness on sub-surface pests. When hand spraying, spray using a slow, even sweeping motion, making sure to cover the entire lawn or turf grass area where pests are observed. Spray under ornamentals and trees. Repeat treatments may be necessary at 7 to 14 day intervals.

Rate range:

Use lower rate range for pests that are commonly exposed and will be contacted by spray solution at the time of application. For pests that will not be contacted by spray solution at the time of application, use the upper rate range. Use 1.0 fl. oz. per 1,000 sq. ft. when treating Mole Crickets and Chinch Bugs.

To kill Swarming Termites: OUTDOORS ONLY.

Apply spray mix as a coarse, wetting spray when swarming termites are seen emerging from woodpiles, wooden fence posts, wooden structures, or from the ground. Swarming usually occurs in the spring or at other times when a termite colony becomes overcrowded and new reproductive termites with wings emerge and fly away to mate and establish new colonies. This treatment will control the sprayed termites and will not protect the structure from which the swarm is coming. Use only as a contact spray to kill emerging reproductive (winged) and worker termites emerging from infested wood. This treatment is not a substitute for a comprehensive termite control program.

To kill listed wood destroying pests: OUTDOORS ONLY.

Apply spray mix as a coarse, wetting spray to exposed pests and to the damaged areas of wood, spraying into galleries or tunnels in the exposed wood. Also spray around doors, window and door frames, and other areas where these pests may hide or enter the house. Spray into cracks and crevices and, if necessary, drill small holes and spray into inaccessible wooden structural voids where these pests are suspected.

Mosquito breeding sites:

Mosquito populations may be reduced by application of Onslaught Microencapsulated Insecticide to sites where Mosquitoes rest, harbor, and breed. Apply spray solution into tall grass, shrubbery, and around back yards and lawns where these pests may hover or rest. Apply while air is still.

Not for wide area mosquito abatement using aerial or truck mounted cold aerosol ULV sprayers and thermal fogging devices.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear protective eyewear (goggles, face shield or safety glasses with side shields). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and other aquatic invertebrates. To protect the environment, do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage system. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirement of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees or other pollinating insects are foraging in the treatment area.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Onslaught
MICROENCAPSULATED INSECTICIDE

EPA Reg. No. 1021-1815
EPA Est. No. 1021-MN-2
Rev. 1119-0722

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Do not give any liquid to the person.
- Do not induce vomiting unless told to do so by a poison control center or a doctor.
- Do not give anything by mouth to an unconscious person.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN:

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry area under lock and key. Post as a pesticide storage area. Always store pesticides in the original container. Store away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Place liquid formulations on lower shelves and dry formulations above.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local government or by industry).

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container.

(For containers less than or equal to 5 gallons)

Triple rinse as follows: Empty the remaining contents into the application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into the application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

(For containers greater than 5 gallons)

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state or local ordinances.



Manufactured for MGK®
©2022 MGK. All rights reserved.
7325 Aspen Lane North, Minneapolis, MN 55428
MGK®, ONSLAUGHT® and NyGuard® are registered trademarks of McLaughlin Gormley King Company



SAFETY DATA SHEET

Issue Date: 31-Aug-2020

Revision Date: 31-Aug-2020

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Onslaught® Microencapsulated Insecticide

EPA Registration Number: 1021-1815

Other means of identification

Part Code: 28371, 28371A, 28371B, 28371C,

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:

McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA

FAX #:

(763) 544-6437

Telephone Number: (800) 645-6466, or (763) 544-0341

e-Mail Address: mgk-sds@mgk.com

Emergency telephone number

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300

International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments:

MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2B

Label elements

Emergency Overview

WARNING

Hazard statements

- H332 - Harmful if inhaled
- H320 - Causes eye irritation



Appearance: light amber / Opaque ,
cream

Physical state: Liquid

Odor Sweet

Precautionary Statements - Prevention:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear eye protection/face protection

Precautionary Statements - Response:

P321 - Specific treatment (see Section 4/ First Aid).

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage:

P404 - Store in a closed container

Precautionary Statements - Disposal:

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Esfenvalerate	66230-04-4	6.40
Petroleum distillates, hydrotreated light	64742-47-8	<10 *

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures

Eye contact:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call

	a poison control center or doctor for treatment advice.
Skin Contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion:	If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.
Inhalation:	Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Self-protection of the First Responder:	Use personal protective equipment as required.
Note to physicians:	For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO₂).

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Supplier OEL
Petroleum distillates, hydrotreated light 64742-47-8	-	-	-	TWA: 100 ppm TWA: 525 mg/m ³

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Protective gloves are recommended, but are not required.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Liquid
Appearance: light amber / Opaque , cream
Odor Sweet
Odor threshold: No information available
Color (Gardner Scale): No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	5.30	@ 21.0 °C
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	Tag Closed Cup. .

Evaporation rate: No information available
Flammability (solid, gas): No information available
Upper flammability limit (UEL): No information available
Lower flammability limit (LEL): No information available
Vapor pressure: No information available
Vapor density: No information available
Specific Gravity: No information available
Water solubility: No information available
Partition coefficient; n-Octanol/ Water: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
Dynamic viscosity: 83.0 @ 20°C, 72.5 @ 40°C, cPs
Refractive Index: No information available

Other Information:
Density 1.0070 g/cm³ @ 21.8 °C
VOC Content (%): 1.21

Miscibility/ Solubility:
Water: Partially miscible
Alcohol: Partially miscible
Aromatic solvents: Partially miscible
Petroleum distillates: Partially miscible

10. STABILITY AND REACTIVITY

Reactivity
 No data available

Chemical stability
 Stable under recommended storage conditions.

Possibility of Hazardous Reactions
 None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid
 Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION**Numerical measures of toxicity - Product Information**

Oral LD₅₀	>2,000 mg/kg (rat)
Dermal LD₅₀	>2,000 mg/kg (rabbit)
Inhalation LC₅₀	>2.06 mg/L, (rat; 4 hours)
Eye contact:	Irritation cleared within 7 days. (rabbit).
Skin Contact:	Slight irritation at 72 hours. (rabbit).
Skin Irritation Index:	1.0
Sensitization:	Negative. (guinea pig).
Comment:	Some of the above toxicity data was bridged from the insecticide concentrate, that is used in manufacturing this end-use product.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.

12. ECOLOGICAL INFORMATION**Ecotoxicity:****Persistence and degradability**

No information available.

Bioaccumulation

No information available.

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Other DOT Shipping Information: This material is **not** regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (*i.e.*, less-than 119 Gallons / 450 Liters).

When shipping in Bulk-quantities (*i.e.*, more than 119 Gallons / 450 Liters), please contact MGK® for the proper shipping description.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, Liquid, n.o.s.(Esfenvalerate)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard

Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund

Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:

California Proposition 65:

This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-1815

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Harmful if swallowed
- Harmful if absorbed through the skin.
- Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties
<u>HMIS</u>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection

X

Chronic Hazard Star Legend * = Chronic Health Hazard

Issue Date:	Revision Date:	Revision Note:
31-Aug-2020	31-Aug-2020	- SDS sections updated - Product Code Changed - pH Value Has Changed - 1 - 9 - 14 - 15

SDS Prepared By: Troy Azzivitto, MGK® Chemistry Department.
e-Mail Address: mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet



Control Solutions Inc.

A member of the ADAMA Group

PIVOT ULTRA PLUS

PRESSURIZED FLEA IGR & ADULTICIDE

- Broadcast carpet spray for flea control
- Continuous flea protection for up to 3 months
- Adulticides and IGR Provide Dual modes of action
- Disrupts the life cycle of fleas
- For indoor/outdoor use

ACTIVE INGREDIENT:

Etofenprox	1.00%
Pyriproxyfen	0.10%
Prallethrin	0.05%
OTHER INGREDIENTS*:	<u>98.85%</u>
TOTAL:	100.00%

*Contains Petroleum Distillate

Contains no CFCs or other ozone depleting substances. Federal regulations prohibit CFC propellants in aerosols.



ADAMA

Consumer & Professional Solutions

Manufactured for:
Control Solutions, Inc.
5903 Genoa Red Bluff
Pasadena, TX 77507

EPA Reg. No: 53883-421
EPA Est. No: 53883-TX-002
Net Contents: 15 oz.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains a petroleum distillate – vomiting may cause aspiration pneumonia.	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or rain do not blow or wash pesticide away from the treatment area.

PHYSICAL HAZARDS

Flammable. Contents under pressure. Keep away from heat, sparks and open flame. Do not puncture or incinerate containers. Exposure to temperatures above 130°F may cause bursting. Do not apply this product around electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

READ ALL DIRECTIONS COMPLETELY BEFORE USE.

For use in and on buildings and structures such as homes, apartments, hotels, offices, stores, warehouses, schools, nursing homes, hospitals, industrial buildings, vessels, rail cars, trucks, trailers, and aircraft (except cabins).

Pivot Ultra Plus kills fleas, ticks, cockroaches, ants (excluding Carpenter, Harvester, and Pharaoh ants), silverfish, crickets, spiders, sowbugs and carpet beetles.

USE RESTRICTIONS

- Do not apply to classrooms when in use.
- Do not use in aircraft cabins.
- Do not apply to patient rooms in hospitals and nursing homes while occupied.
- Cover aquariums and fish bowls and remove birds from area prior to treating.
- Vacate areas to be treated and do not reoccupy or contact treated surfaces until dry.
- Do not apply in food/feed areas of commercial structures (i.e. food/feed handling facilities). In the home, cover or remove exposed food, in the treatment area, prior to application. Cover all food processing surfaces and utensils in the treatment area, or thoroughly wash before reuse.
- **Do not treat pets with this product.** Treat pets with a product registered for use for flea control on animals in conjunction with this treatment.

PRODUCT INFORMATION

Pivot Ultra Plus kills both adult and pre-adult fleas with a combination of adulticides and an insect growth regulator. Adult fleas may be seen in the treated areas when brought in on infested animals or when adults emerge from pupal cases.

In transportation equipment, certain plastics may be whitened or dulled as a result of application. Apply only to carpets and cloth upholstered areas, or test an inconspicuous area before treating.

APPLICATION INSTRUCTIONS

FOR INDOOR USE:

Prior to treatment, thoroughly vacuum all carpeting, upholstered furniture and along baseboards, under furniture and in closets.

SHAKE WELL BEFORE USE. Use at the rate of 15 oz for up to 1,965 ft² applying in a sweeping motion at a speed of 1 ft/sec. Avoid wetting or saturating carpets or furniture. A fine mist that is evenly applied is

sufficient for the product to work. Avoid spraying wood furniture, floors or trim as water spotting may occur. Prior to treatment, make a small test application to desired surfaces in an out of the way area to determine if staining or spotting will occur.

FLEAS: Treat all areas that may harbor insects such as, rugs, carpets, upholstered furniture, pet beds, points where carpet and wall meet, draperies, around and under furniture or other stored items. Hold can at arms length and direct spray toward the area to be treated. Use a sweeping motion to apply product and back away from treated area while holding the can 24" away from the surface being treated. An area of 80-100 ft² can be treated in approximately 10 seconds with this product. When treating upholstered furniture, treat under cushions and in seams and folds. Reapply as necessary.

SPIDERS (including Black Widow and Brown Recluse): Apply directly to spiders. Spray 36 inches (3 feet) away for one second. Before applying, consider the surfaces that spray may contact if concerned about potential staining.

TICKS: Apply directly to ticks in carpet or flooring; directly apply to wall/floor junction and upper wall areas as needed. Spray 24 inches (2 feet) away for one second. Thoroughly treat pet resting areas such as furniture and carpeted areas. Use care when applying to hardwood floors and only use a light mist to those areas.

COCKROACHES, ANTS (excluding Carpenter, Harvester and Pharaoh ants), CRICKETS, SILVERFISH, SOWBUGS AND CARPET BEETLES: Apply directly to exposed insects in areas where these pests are found or may hide, including dark corners of rooms and closets, cracks and crevices, along baseboards and door sills and frames, behind sinks, stoves, refrigerators, and cabinets and around garbage cans, plumbing and other utility installations. Directly spray pests driven out of hiding places. Spray ant trails, nests and points of entry directly contacting ants. Reapply as necessary.

PET BEDDING: Treat pet bedding and resting places. Apply a uniform application of Pivot Ultra Plus to nearby cracks and crevices, along and behind baseboards, window and door sills, and localized areas of floors directly contacting fleas, as these are primary hiding places for fleas. Old pet bedding must be removed and replaced with clean fresh bedding after treatment.

INDOOR KENNELS: Remove pets before spraying. Spray Pivot Ultra Plus from 24" away from surface being treated. Apply with a smooth back-and-forth motion. A fine mist that is evenly applied is sufficient for the product to work. Re-treat as necessary to control fleas.

FOR OUTDOOR USE:

Point spray nozzle away from face. Hold can on slight downward angle. For best results, spray when air is calm. Spray with wind if breeze is blowing.

PESTS ON OUTSIDE SURFACES OF BUILDINGS (Ants (excluding Carpenter, Harvester and Pharaoh ants), Cockroaches, Crickets and Sowbugs): Spray pests directly on outside surfaces of building. For ants (excluding Carpenter, Harvester and Pharaoh ants), spray ants directly or around nests hidden under steps, brickwork, concrete, etc. Break apart accessible nests and spray directly on ants and around debris. Pivot Ultra Plus may be applied as a spot, crack and crevice or void treatment to outside surfaces directly contacting listed insects. Do not spray as a broadcast spray. Spray outside surfaces where listed insects are congregating. Spray areas include screens, window frames, eaves, porches, patios, garages and refuse dumps. Repeat treatment as necessary.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry area away from heat or open flame.

PESTICIDE DISPOSAL: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Do not puncture or incinerate! Empty container by using the product in accordance with the label directions. If empty: Offer empty container for recycling, if available, or place in trash if allowed by state and local regulations. If partly full: Contact your local solid waste agency for disposal instructions.

WARRANTY

Read the entire Directions for Use and Warranty before using this product. By using this product, user or buyer accepts the following warranty. The directions for use of this product are believed to be adequate and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Unintended consequences may result because of unknown factors. To the extent consistent with applicable law, such risks shall be assumed by the user or buyer. The seller is committed to providing high quality products. To the extent consistent with applicable law, the seller makes no warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. To the extent consistent with applicable law, the manufacturer or the seller shall not be liable for indirect, special, incidental or consequential damages. To the extent consistent with applicable law, the exclusive remedy of the user or buyer shall not exceed the purchase price paid.



SAFETY DATA SHEET

Pivot Ultra Plus

SECTION 1: IDENTIFICATION

Product Name: Pivot Ultra Plus
EPA Registration No.: 53883-421
Recommended Use: Insecticide; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Family: N/A – Multiple Active Ingredients
Chemical Name of Active Ingredient(s): Etofenprox
Pyriproxyfen
Prallethrin
Manufactured for: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Aerosol with no odor. Ingestion of the concentrate material may be an aspiration hazard. Contents under pressure. Concentrate is a combustible liquid.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Aspiration Hazard	Category 1
Flammable Aerosol	Category 2

Signal Word: DANGER



Hazard Statement(s): May be fatal if swallowed and enters airways.

Precautionary Statement(s):

- Prevention:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
- Response: IF SWALLOWED:** Immediately call a poison center/doctor. Do NOT induce vomiting.
- Storage:** Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- Disposal:** Dispose of contents/container in accordance with Federal, state and local laws and regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Distillates, petroleum, hydrotreated light	64742-47-8	15.0 – 20.0%
Hydrocarbon propellant	68476-86-8	<15.0%
Nonylphenol ethoxylate	127087-87-0	1.0 – 2.0%
Etofenprox	80844-07-1	1.0%
Pyriproxyfen	95737-68-1	0.2%
Prallethrin	23031-36-9	0.05%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Moderate but temporary skin irritation. Vomiting may cause aspiration pneumonia. Long-term exposure to skin without washing may cause moderate skin effects such as redness, dryness, sloughing and fissuring.

Note to Physician: Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Foam, dry chemical, carbon dioxide or water fog/spray
Unsuitable Extinguishing Media:	Water jet
Hazardous Combustion Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides, and halogenated hydrocarbons.
Special Protective Equipment & Precautions:	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).
Unusual Fire & Explosion Hazards:	Compressed gas. Containers may burst under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: See Section 8 for personal protection equipment.

Environmental Precautions: Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.

Methods for Containment: Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.

Methods for Clean-up: Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.

Other Information: None known

SECTION 7: HANDLING AND STORAGE

Handling: RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes. Avoid all sources of ignition and high heat.

Storage: See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals. Containers may explode at or above listed maximum storage temperature.

Storage Temperature (Min/Max): Do not store at temperatures exceeding 122°F (50°C).

Product Incompatibilities: None known

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Petroleum distillates	500 ppm (TWA)		350 mg/m ³ (TWA) 1,800 mg/m ³ (CEIL)(15 min)
Propane	1000 ppm (TWA)	TWA/STEL: Simple asphyxiant	
n-Butane		STEL: 1000 ppm	

Pivot Ultra Plus

Revision Date: September 24, 2021

Engineering Controls: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS REQUIRED FOR PRODUCT APPLICATORS, END USERS, AND HANDLERS AND COMES FROM THE FIFRA APPROVED PESTICIDE LABEL:

No personal protective equipment is required for applicators, end users, and handlers of Pivot Ultra Plus.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS:

Respiratory Protection: In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for organic vapors.

Eye Protection: Chemical goggles or safety glasses and full-face shield.

Protective Gloves: Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.

Other Protective Clothing: Long-sleeved shirt, long pants and shoes plus socks.

General Safety Measures: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Aerosol (Concentrate is white)	Upper/Lower Flammability Limits:	Not determined
Odor:	Nearly odorless	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	5.0 – 5.5	Relative Density (@24°C):	0.954 (typical)
Melting /Freezing Point:	Not determined	Solubility in Water:	Not determined
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	157°F (concentrate)	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known if stored and handled as indicated.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known if stored and handled as indicated.
Conditions to Avoid:	Exposure to temperatures above 122°F (50°C). Avoid all sources of ignition: heat, sparks, open flames. Avoid prolonged storage.
Incompatible Materials:	None known
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides, and halogenated hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure: Moderate but temporary skin irritation. Vomiting may cause aspiration pneumonia. Long-term exposure to skin without washing may cause moderate skin effects such as redness, dryness, sloughing and fissuring.
Oral LD₅₀: >5,000 mg/kg (rat)
Dermal LD₅₀: >5,050 mg/kg (rat)
Inhalation LC₅₀: >2.36 mg/L (rat)(no mortality at this concentration)
Eye Irritation/Damage: Non-irritant (rabbit)
Skin Corrosion/Irritation: Mild irritation with all effects clearing in 7 days (rabbit)
Skin Sensitization: Non-sensitizer (guinea pig)
Chronic/Subchronic Toxicity: No data available on the mixture
Mutagenicity: No data available on the mixture
Reproductive Toxicity: No data available on the mixture
Neurotoxicity: No data available on the mixture
Target Organs: No data available on the mixture
Aspiration Hazard: Contains petroleum distillates, so concentrate prior to adding propellant may be an aspiration hazard.

Carcinogenicity:

Chemical Name	ACGIH	IARC	NTP	OSHA
None listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This pesticide is highly toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or rain do not blow or wash pesticide away from the treatment area.

ECOTOXICITY DATA:

Fish Toxicity: No data available on the mixture
Aquatic Invertebrate Toxicity: No data available on the mixture
Aquatic Plant Toxicity: No data available on the mixture
Avian Toxicity: No data available on the mixture
Honeybee Toxicity: No data available on the mixture

ENVIRONMENTAL EFFECTS:

Persistence and Degradability: No data available on the mixture
Bioaccumulation: No data available on the mixture
Mobility: No data available on the mixture
Other Adverse Effects: No data available on the mixture

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

SECTION 14: TRANSPORTATION INFORMATION

DOT UN1950, Aerosols, flammable, 2.1
(Ground): This product may be classified as Limited Quantity.
IMDG
(Sea): UN1950, Aerosols, flammable, 2.1
IATA
(Air): UN1950, Aerosols, flammable, 2.1

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None
Section 311/312 – Hazard Categories: Acute (Immediate); Fire; Sudden release of pressure
Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
None listed		

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Nonylphenol ethoxylate	X		X
Etofenprox	X		X
Prallethrin	X		X
Distillates, petroleum, hydrotreated light	X	X	X

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 2	Instability 0	Special Hazards – None
-------------	-------------------------	-----------------------	----------------------	-------------------------------

Disclaimer: Control Solutions, Inc. believes the information presented herein is accurate and correct as of the document date. The presented information is based upon available data from reliable sources. Control Solutions, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

Revision Date: September 24, 2021
Document Superseded: May 4, 2017
Revision Note: Added clarification statements to Section 8.

MATERIAL SAFETY DATA SHEET

POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN

1. Product And Company Identification			
Supplier Personal Care Products, LLC 3001 W. Big Beaver Road Suite 520 Troy, MI 48084 USA Telephone Number: 248-258-1555		Manufacturer Chase Products Co. 19th and Gardner Road Broadview, IL 60155 USA Company Contact: Laura E. Radevski Telephone Number: 708-865-1000 FAX Number: 708-865-0923 E-Mail: sales@chaseproducts.com Web Site: www.chaseproducts.com	
Supplier Emergency Contacts & Phone Number 248-258-1555		Manufacturer Emergency Contacts & Phone Number Chem-Tel: 1-800-255-3924	
Issue Date: 10/24/2012 Product Name: POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN Chemical Name: 7-7806 EPA Registry Number: 498-179-51463 MSDS Number: 5227 Product Code: 449-1109-2 Product/Material Uses - Spray Disinfectant			
2. Composition/Information On Ingredients			
Ingredient Name		CAS Number	Percent Of Total Weight
BUTANE		106-97-8	
ETHYL ALCOHOL		64-17-5	
PROPANE		74-98-6	
This product may contain Isobutane (CAS# 75-28-5) instead of butane. Hazardous components, according to OSHA, are listed when present at 1.0% or greater. Carcinogens are listed when present at 0.1% or greater. See label for active ingredients.			
3. Hazards Identification			
Primary Routes(s) Of Entry - Ingestion (possible, but considered unlikely), eye contact, skin contact, inhalation. Eye Hazards - Can cause irritation after contact with the eyes. Skin Hazards - May cause skin irritation after prolonged contact with skin. Ingestion Hazards - This is an aerosol product, ingestion is unlikely to occur. Inhalation Hazards - Deliberate inhalation of concentrated vapor or mist may cause headaches, dizziness and nausea. Chronic/Carcinogenicity Effects - Not known, chronic effects based on available data. None of the ingredients, present in excess of 0.1%, are listed as carcinogenic by NTP, IARC or OSHA. Teratogenicity (Birth Defects) - Not known Reproductive Effects - Not known Neurotoxicity - Not known Mutagenicity (Genetic Effect) - Not known Signs And Symptoms - Acute: Deliberate inhalation of concentrated vapor or mist may cause headaches, dizziness and nausea. Prolonged and repeated contact with skin may cause irritation. Contact with the eyes causes irritation. Conditions Aggravated By Exposure - May aggravate pre-existing skin and respiratory disorders. Conditions Aggravated By Overexposure - May aggravate pre-existing skin and respiratory disorders.			

MATERIAL SAFETY DATA SHEET

POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN

First Aid (Pictograms)



4. First Aid Measures

Eye - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin - Wash skin with soap and water. If irritation develops, call a poison control center or doctor for treatment advice.

Ingestion - Ingestion from an aerosol product is unlikely to occur.

Inhalation - If overcome by vapor, move person victim to fresh air. Restore respiration if necessary. Get medical attention if injury develops.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Flash Point: Not available °F Not available °C

Flash Point Method: Not available

Lower Explosive Limit: Not available

Upper Explosive Limit: Not available

Fire And Explosion Hazards - This product is an aerosol product for which Flame Projection is 6-8 in. without flashback. Temperatures above 120 F may cause cans to burst.

Extinguishing Media - Use CO2 (Carbon Dioxide), dry chemical, or water fog.

Fire Fighting Instructions - Water spray may be used to cool cans in the vicinity of fire or excessive heat.

6. Accidental Release Measures

Provide adequate ventilation to area being treated. Soak up spills with chemically inert, absorbent material.

Handling & Storage (Pictograms)



7. Handling And Storage

Handling And Storage Precautions - Store in a cool, dry place away from heat and open flame.

Handling Precautions - Do not deliberately inhale vapor or spray mist. Avoid getting spray into eyes. Keep out of reach of children.

Storage Precautions - Keep away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors and static electricity). AEROSOL STORAGE LEVEL I (NFPA-30B)

Work/Hygienic Practices - Wash thoroughly after handling.

Protective Clothing (Pictograms)



MATERIAL SAFETY DATA SHEET

POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN

8. Exposure Controls/Personal Protection

Engineering Controls - Use with adequate general or local exhaust ventilation.

Eye/Face Protection - Conventional eyeglasses to guard against splashing.

Skin Protection - Household type gloves, if desired.

Respiratory Protection - None required if used in a well-ventilated area.

Ingredient(s) - Exposure Limits

BUTANE

ACGIH TLV-TWA 1000 ppm

ETHYL ALCOHOL

ACGIH TLV-TWA 1000 ppm ; OSHA PEL-TWA 1000 ppm

PROPANE

ACGIH TLV-TWA 2500 ppm ; OSHA PEL-TWA 1,000 ppm

9. Physical And Chemical Properties

Appearance - Hazy, yellow liquid.

Odor - Perfumed

Chemical Type: Mixture

Physical State: Liquid

Melting Point: Not applicable °F Not applicable °C

Boiling Point: Water 212 °F Water 100 °C

Specific Gravity: 0.92 concentrate

Percent VOCs: 51.32

pH Factor: 10.5+/-0.5

Solubility: Soluble in water

Evaporation Rate: Faster than butyl acetate

10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability) - Temperatures above 120 F

Incompatible Materials - Avoid heat, open flame and contact with strong oxidizers.

Hazardous Decomposition Products - Thermal decomposition may yield gases like carbon monoxide and carbon dioxide.

Conditions To Avoid (Polymerization) - Temperatures above 120 F

11. Toxicological Information

No Data Available...

12. Ecological Information

No Data Available...

13. Disposal Considerations

Do not puncture or incinerate container. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions.

MATERIAL SAFETY DATA SHEET

POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN

14. Transport Information

Proper Shipping Name - Limited Quantity - Disinfectant Spray

Hazard Class

2.1

DOT Identification Number

UN1950

DOT Shipping Label

Aerosol Consumer Commodity

15. Regulatory Information

U.S. Regulatory Information - All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA Hazard Classes

Acute Health Hazard

SARA Section 313 Notification - This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Ingredient(s) - State Regulations

BUTANE

New Jersey - Workplace Hazard; New Jersey - Environmental Hazard; New Jersey - Special Hazard; Pennsylvania - Workplace Hazard; Massachusetts - Hazardous Substance; New York City - Hazardous Substance

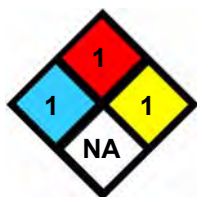
ETHYL ALCOHOL

New Jersey - Workplace Hazard; New Jersey - Special Hazard; Pennsylvania - Workplace Hazard; Massachusetts - Hazardous Substance; New York City - Hazardous Substance

PROPANE

New Jersey - Workplace Hazard; New Jersey - Environmental Hazard; New Jersey - Special Hazard; Pennsylvania - Workplace Hazard; Massachusetts - Hazardous Substance; New York City - Hazardous Substance

NFPA



HMIS

HEALTH	1
FLAMMABILITY	2
REACTIVITY	1
PERSONAL PROTECTION	A

16. Other Information

Revision/Preparer Information

MSDS Preparer: Regulatory Department

MSDS Preparer Phone Number: 708-865-1000

This MSDS Supersedes A Previous MSDS Dated: 04/11/2012

M A T E R I A L S A F E T Y D A T A S H E E T

POWERHOUSE POWERFUL HOME CLEANER DISINFECTANT SPRAY LINEN

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

Personal Care Products, LLC

Printed Using MSDS Generator™ 2000

PT[®] 565 Plus XLO[®]

Pressurized Contact Insecticide

KILLS: Angoumois Grain Moths, Ants, Bed Bugs, Bees, Booklice, Carpet Beetles, Chocolate Moths, Cigarette Beetles, Clothes Moths, Clover Mites, Cluster Flies, Cockroaches, Confused Flour Beetles, Crickets, Drug Store Beetles, Fleas, Flies, Fruit Flies, Gnats, Grain Mites, Granary Weevils, Horn Flies, House Flies, Indianmeal Moths, Mediterranean Flour Moths, Millipedes, Mosquitoes, Mud Daubers, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Silverfish, Small Flying Moths, Sowbugs, Spiders, Stable Flies, Ticks, and Wasps

FOR USE IN AND AROUND: Apartments, Campgrounds, Food Storage Areas, Homes, Hospitals[†], Hotels, Motels, Nursing Homes[†], Resorts, Restaurants and other Food Handling Establishments[†], Schools[†], Supermarkets, Transportation Equipment (Boats, Buses, Planes[†], Ships, Trains, and Trucks), Utilities, and Warehouses and other Commercial and Industrial Buildings

[†]See use restrictions for these sites under **Directions For Use**.

ACTIVE INGREDIENTS:

Pyrethrins, <i>a botanical insecticide</i>	0,5%
Piperonyl Butoxide*	1,0%
n-Octyl Bicycloheptene Dicarboximide	1,0%

OTHER INGREDIENTS:

TOTAL: 100,0%

*(butylcarbityl)(6-propylpiperonyl) ether and related compounds

EPA Reg. No. 499-290

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

Refer to full label for **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific pest and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

NET CONTENTS:

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
We create chemistry

FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give anything to an unconscious person.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear the following: long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

In addition to the above PPE, applicators fogging this product (applying as a space spray) in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any R, P, or HE filter.

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with product's concentrate. **DO NOT** reuse them.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several months or more after an outdoor application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. **DO NOT** apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area.

DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Physical or Chemical Hazards

Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. **DO NOT** puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting. **DO NOT** use this product in electrical equipment (where there is exposed wiring or contact points) due to possibility of short circuits and shock hazard.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Use Restrictions

- **DO NOT** wet plants to point of runoff or drip.
- Apply this product only as specified on this label.
- Only protected applicators may be in the treatment area during application.
- **DO NOT** apply more than 1 time per day.
- Product should only be used when can temperature is above 60° F. If can temperature is below 60° F, store at room temperature until a temperature above 60° F is reached.
- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift.

- Remove pets and birds before application. Cover fish aquariums and turn off air pump motors before application.
- Use only with the supplied actuator and injection tubes or other application equipment approved by the registrant.
- **DO NOT** spray on plastic, painted, or varnished surfaces or directly into any electronic equipment such as radios, televisions, computers, etc.
- When used as a direct spray, **DO NOT** enter or allow others to enter until sprays have dried.
- **DO NOT** make outdoor applications during rain.
- Remove or cover all food and drinking water in the treatment area before application.
- Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces in the treatment area or wash them before use.
- For space sprays:
 - **DO NOT** allow adults, children, or pets to enter the treated area for at least 15 minutes and until vapors, mists, and aerosols have dispersed and the treated area has been thoroughly ventilated.
 - **DO NOT** remain in treated area. Exit area immediately and remain outside the treated area until aerosol, vapors, and/or mists have dispersed.
- **DO NOT** wet articles to point of runoff or drip.
- **DO NOT** use treated articles until spray has dried.
- For direct application to clothing, dry clean treated clothes before wearing.
- For space spray applications in food handling and processing facilities:
 - **DO NOT** make applications when facility is in operation.
 - Cover or remove food in the treatment area.
 - Cover food processing surfaces in the treatment area or clean after treatment and before use.
- **DO NOT** use in aircraft cabins. Use only in cargo areas.
- When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- In livestock operations, apply only when animals are not present.
- **DO NOT** apply this product in hospital rooms while occupied or in any rooms occupied by the elderly or infirm. Remove patients from room prior to treatment and thoroughly ventilate (2 hours) after application. **DO NOT** return patients to room until after ventilation.
- **DO NOT** use in patient rooms in hospitals and nursing homes for treatment of bed bugs.
- **DO NOT** apply to classrooms when in use.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in a cool, dry area away from heat or open flame, in an area that is inaccessible to children and animals.

Pesticide Disposal

Wastes resulting from use of this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

Container Handling

DO NOT puncture or incinerate! **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Application Instructions

Apply according to specific directions for pest(s) to be treated.

Crack & Crevice® Application

Inject this product into cracks and crevices or void spaces where insects may be harboring, living, and breeding. Place injector tip into cracks, crevices, holes, and other small openings. Apply product for 1 second. For light infestations, move injector tip along cracks while treating at the rate of 3 feet per second. For heavy infestations, move injector tip along at 1 foot per second. The amount of product applied is to not exceed 1 second (1.5 grams) per square foot.

For treatment of inaccessible voids (including wall and equipment voids), calculate the void's cubic area and treat at the rate of 3 to 5 seconds per 3 cubic feet. Several holes may be required in long-running voids. The amount of product applied is not to exceed 1 second (1.5 grams) per square foot once deposited.

Direct Spray

Apply the product in short bursts into the area where insects are to be contacted such as corners of the room, and behind and under furniture or equipment. Apply from a distance of 18 to 24 inches from the surface and allow the material to drift to the area to be treated. The amount of product applied is not to exceed 10 seconds per room for residential areas or 10 seconds per 100 square feet for commercial areas.

Space Spray

Turn off air conditioners and fans; and close doors and windows before treating. Calculate the cubic footage of the area to be treated and apply as follows: **Flying Insects:**

Apply at the rate of 1 to 3 seconds per 1,000 cubic feet.

Crawling Insects: Apply at the rate of 20 seconds per 1,000 cubic feet. Disperse toward areas suspected of harboring the greatest insect infestations. Disperse in all locations contacting as many insects as possible. Keep area closed for 15 minutes. Open and thoroughly ventilate before reoccupying. The amount of product applied is not to exceed 20 seconds (30 grams) per 1,000 cubic feet.

Indoor Use

Apply this product as a **Crack & Crevice**® treatment, space spray, and/or direct spray. Apply according to the **Application Instructions** unless otherwise instructed below.

Bees, Clover Mites, Cluster Flies, Flies, Fruit Flies, Gnats, House Flies, Mosquitoes, Small Flying Moths, Stable Flies, and Wasps

Perform directed spray and/or void treatments in infested areas. **Inside Structural Voids:** Locate all insect entrances and close all but one opening. Apply product through that opening.

Ants, Booklice, Clover Mites, Cockroaches, Crickets, Millipedes, Silverfish, Sowbugs, and Spiders

Treat harborage areas such as behind baseboards, sinks, cabinets, meter boxes, door frames, corners of rooms, and windows. Open and thoroughly ventilate the treated area before reoccupying.

Bed Bugs

Take bed apart. Treat joints and channels if hollow, such as square or round tubing, and see that the interior framework is treated. Treat mattresses, especially tufts, folds, and edges. Cover mattresses with clean bedding before use. When bed bugs are found in upholstered furniture, apply only to the infested tufts, seams, folds, and edges and underneath all areas, but **DO NOT** apply to flat surfaces where human contact will occur. Apply as a

Crack & Crevice treatment to all baseboards, moldings, beneath floor coverings and carpets, closets, shelves, curtains, furniture, and picture frames. Direct spray into areas where bed bugs harbor. **DO NOT** use in patient rooms in hospitals and nursing homes for treatment of bed bugs. Reapply every 7 to 10 days, as needed, until infestation is eliminated.

Carpet Beetles (in Residences)

Hold product 36 inches above floor and direct spray toward floor and lower walls, treating at the rate of 10 seconds per 100 square feet. Also apply to cracks and crevices near the source of the infestation.

Clothes Moths

Locate source of infestation. Apply to nearby cracks and crevices and perform a space treatment of the infested area at the rate of 5 to 10 seconds per 1,000 cubic feet.

To protect woolens and other keratin containing materials, brush clean and then air out. Before treating the entire article, treat a small hidden area of fabric to determine if staining will occur. Treat thoroughly by holding dispenser \geq 18 inches from garment. Put treated articles in a darkened closet or other darkened storage such as cedar chests, storage drawers, or sealable plastic fabric bags. Clean and treat inside of closets or storage areas at the rate of 1 second per 10 square feet before putting treated materials away. Repeat treatment every 6 months or as needed. Dry clean treated clothes before wearing.

Stored Product Pests – For Exposed Adult and Larval Stages of Angoumois Grain Moths (crawling), Carpet Beetles, Chocolate Moths, Cigarette Beetles, Confused Flour Beetles, Drug Store Beetles, Grain Mites, Granary Weevils, Indianmeal Moths, Mediterranean Flour Moths (flying), Red Flour Beetles, Rice Weevils, and Sawtoothed Grain Beetles

Apply as a **Crack & Crevice**, direct spray, or space spray into cracks and crevices/corners of pantries, cabinets, food processing and handling equipment, and other places where insects harbor. Apply around cartons, containers, and other areas where these insects tend to congregate.

Fleas (in Buildings)

Hold container 36 inches above floor and direct spray toward floor and lower walls at the rate of 10 seconds per 100 square feet. Ensure that the underneath and lower surfaces of furniture are contacted. Keep area closed for 15 minutes. Open and thoroughly ventilate before reoccupying. Repeat treatment after 7 days if necessary.

Ticks

Hold container 36 inches above the floor and direct spray toward pet beds and resting quarters, treating at the rate of 10 seconds per 100 square feet. Apply as a **Crack & Crevice** treatment into adjacent cracks and crevices such as behind baseboards and edges of carpet and floor covers. Treat higher cracks such as upper door jams and window framing, behind pictures, and other areas where females may crawl to lay eggs.

Food Handling Establishments

Food handling establishments are places other than private residences in which food is held, processed, prepared, or served.

Food Areas

Include areas for receiving, serving, storing (dry, cold, frozen, raw), packing (canning, bottling, wrapping, boxing), preparing (cleaning, slicing, cooking, grinding), edible waste storage, and enclosed processing systems (mills, dairies, edible oils, syrups).

Non-food Areas

Include areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage areas (after canning or bottling).

Apply according to specific directions for pest(s) to be treated. **DO NOT** make space spray applications to food areas when the facility is in operation. Prior to space spray applications, remove or cover exposed food and drinking water in the treatment area. Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces in the treatment area or wash them before use.

Outdoor Treatments

Bees, Clover Mites, Cluster Flies, Flies, Gnats, Mosquitoes, Mud Daubers, and Wasps

Note: Outdoor applications are restricted to use on building surfaces and spot treatment on structures. Apply directly on insects and their nests on structures from approximately 18 inches. Disperse into hiding and breeding places (voids) contacting as many insects as possible.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as environmental conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW: (A) BASF MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY, (B) BUYER'S EXCLUSIVE REMEDY AND BASF'S AND SELLER'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT, AND (C) BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to these **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF. PCS915

Contains no CFCs or other ozone depleting substances.

Federal regulations prohibit CFC propellants in aerosols.



Crack & Crevice, PT, and XLO are registered trademarks of BASF.

© 2018 BASF Corporation
All rights reserved.

000499-00290.20180323.NVA 2018-04-412-0034

Based on: NVA 2017-04-412-0202

Supersedes: NVA 2016-04-412-0064

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**

We create chemistry

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date : 2022/11/08

Version: 12.0

Page: 1/15

(30507854/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Recommended use of the chemical and restriction on use

Recommended use*: insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 458813
Registration number: EPA Registration number: 499-290

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Aerosol	1	Flammable aerosols
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 2/15

(30507854/SDS CPA US/EN)

STOT SE	3 (Vapours may cause drowsiness and dizziness.)	Specific target organ toxicity — single exposure
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H222	Extremely flammable aerosol.
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist or vapour or spray.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P391	Collect spillage.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
------	---

Hazards not otherwise classified

Labeling of special preparations (GHS):

Repeated exposure may cause skin dryness or cracking.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 3/15

(30507854/SDS_CPA_US/EN)

May cause paraesthesia. pyrethrum

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Pyrethrins

CAS Number: 8003-34-7

Content (W/W): 0.5 %

Synonym: Pyrethrin

Piperonylbutoxide

CAS Number: 51-03-6

Content (W/W): 1.0 %

Synonym: Piperonylbutoxide

n-Octyl bicycloheptene dicarboximide

CAS Number: 113-48-4

Content (W/W): 1.0 %

Synonym: n-Octyl bicycloheptene dicarboximide

Acetone

CAS Number: 67-64-1

Content (W/W): 50.0 - 75.0%

Synonym: 2-Propanone Acetone; Dimethyl ketone

Distillates, petroleum

CAS Number: 64742-47-8

Content (W/W): 1.0 - 3.0%

Synonym: Distillates, petroleum, hydrotreated light

carbon dioxide

CAS Number: 124-38-9

Content (W/W): 0.0 - 7.0%

Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 4/15

(30507854/SDS_CPA_US/EN)

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Vomiting may cause aspiration pneumonia due to the ingredients.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Vomiting may cause aspiration pneumonia due to the ingredients.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, dry powder, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide,

Aerosol container contains flammable gas under pressure. Pressure inside container is increased when heated, and may cause explosion. If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 5/15

(30507854/SDS_CPA_US/EN)

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame.

Storage stability:

May be kept indefinitely if stored properly.

If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Storage duration: 24 Months

Protect from temperatures above: 130 °F

Explosive at or above indicated temperature.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 6/15

(30507854/SDS_CPA_US/EN)

Acetone	ACGIH, US:	TWA value 250 ppm ;
	ACGIH, US:	STEL value 500 ppm ;
	OSHA Z1:	PEL 1,000 ppm 2,400 mg/m3 ;
carbon dioxide	ACGIH, US:	TWA value 5,000 ppm ;
	ACGIH, US:	STEL value 30,000 ppm ;
	OSHA Z1:	PEL 5,000 ppm 9,000 mg/m3 ;

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid, aerosol
Odour:	of acetone

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 7/15

(30507854/SDS_CPA_US/EN)

Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	amber, cloudy
pH value:	approx. 8 - 10 (1 %(m), 20 - 25 °C)
Flammability:	not applicable
Flammability of Aerosol Products:	> 18 in (ASTM D 3065)
NFPA 30B flammability:	Level 2 Aerosol
Lower explosion limit:	3.4 %(V) The product has not been tested. The statement has been derived from the properties of the individual components.
Upper explosion limit:	18 %(V) The product has not been tested. The statement has been derived from the properties of the individual components.
Autoignition:	350 °C The product has not been tested. The statement has been derived from the properties of the individual components.
Density:	approx. 0.86 g/cm ³ (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.
Viscosity, dynamic:	0.99 mPa.s (20 °C)
Solubility in water:	slightly soluble
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Conditions to avoid

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 8/15

(30507854/SDS_CPA_US/EN)

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

No substances known that should be avoided.

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

No mortality was observed.

Inhalation

Type of value: LC50

Species: rat

Value: > 7.4 mg/l

Type of value: LC50

Species: rat

Value: > 2.1 mg/l

No mortality was observed.

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

No mortality was observed.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 9/15

(30507854/SDS_CPA_US/EN)

Assessment other acute effects

Assessment of STOT single:

Possible narcotic effects (drowsiness or dizziness).

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Not irritating to the skin.

Skin

Species: rabbit

Result: non-irritant

Eye

Species: rabbit

Result: Irritant.

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Species: guinea pig

Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: n-Octyl bicycloheptene dicarboximide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Information on: Piperonylbutoxide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated inhalation of high doses. Repeated dermal uptake of the substance did not cause substance-related effects.

Information on: Acetone

Assessment of repeated dose toxicity: The substance may cause damage to the testes after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the hematological system after repeated ingestion of high doses. The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Information on: carbon dioxide

Assessment of repeated dose toxicity: Prolonged or repeated exposure by inhalation to high concentrations may cause circulatory insufficiency leading to headache, nausea, vomiting and potentially death.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 10/15

(30507854/SDS_CPA_US/EN)

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyrethrum

Assessment of carcinogenicity: The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Not Likely to Be Carcinogenic to Humans.

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

Assessment of carcinogenicity: Not classified, due to lack of data.

Information on: n-Octyl bicycloheptene dicarboximide

Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was observed. The induction of tumors in animal studies was due to a reversible, nongenotoxic effect for which a threshold dose can be derived.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Acetone

Assessment of reproduction toxicity: As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information

Misuse can be harmful to health.

Has a degreasing effect on skin.

12. Ecological Information

Toxicity

Toxicity to fish

Information on: pyrethrum

LC50 (96 h) 0.0052 mg/l, Oncorhynchus mykiss (static)

LC50 (96 h) 0.01 mg/l, Lepomis macrochirus

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

LC50 (96 h) 3.49 mg/l, Cyprinodon variegatus (OECD Guideline 203, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

LC50 1.9 mg/l, Oncorhynchus mykiss

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 11/15

(30507854/SDS_CPA_US/EN)

Information on: dimethyl ether

Toxicity to fish

Information on: Piperonylbutoxide

LC50 (96 h) 3.49 mg/l, *Cyprinodon variegatus* (OECD Guideline 203, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: n-Octyl bicycloheptene dicarboximide

LC50 (96 h) 2.4 mg/l, *Lepomis macrochirus* (other, Flow through.)

LC50 (96 h) 1.4 mg/l, *Oncorhynchus mykiss* (other, Flow through.)

Information on: pyrethrum

LC50 (96 h) 0.0052 mg/l, *Oncorhynchus mykiss* (static)

LC50 (96 h) 0.01 mg/l, *Lepomis macrochirus*

Aquatic invertebrates

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

EC50 (48 h) 0.51 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

No observed effect concentration (28 d) 0.063 mg/l, aquatic arthropod (other)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. Limit concentration test only (LIMIT test).

Information on: dimethyl ether

Aquatic invertebrates

Information on: Piperonylbutoxide

EC50 (48 h) 0.51 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: n-Octyl bicycloheptene dicarboximide

EC50 (48 h) 2.3 mg/l, *Daphnia magna* (other, Flow through.)

Information on: pyrethrum

EC50 (48 h) 0.012 mg/l, *Daphnia magna*

EC50 (48 h) 0.0014 mg/l, *Mysidopsis bahia*

Aquatic plants

Information on: Piperonylbutoxide

EC50 (72 h) 3.89 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 12/15

(30507854/SDS_CPA_US/EN)

No observed effect concentration (72 h) 0.824 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: Piperonylbutoxide

Bioconcentration factor: 91 - 380 (28 d), Lepomis macrochirus (OECD Guideline 305 E)

Information on: pyrethrum

Bioconcentration factor: 471

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Piperonylbutoxide

Adsorption to solid soil phase is not expected.

Information on: n-Octyl bicycloheptene dicarboximide

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is expected.

Information on: pyrethrum

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 13/15

(30507854/SDS_CPA_US/EN)

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Land transport

USDOT

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Proper shipping name: AEROSOLS

Sea transport

IMDG

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Marine pollutant: YES
Proper shipping name: AEROSOLS (contains DIMETHYLETHER, PYRETHRIN 1)

Air transport

IATA/ICAO

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1
Proper shipping name: AEROSOLS, FLAMMABLE

Further information

DOT: This product may be classified as ORM-D (Consumer Commodity) or Limited Quantity. After 12/31/2020, ORM-D will not apply.

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 14/15

(30507854/SDS_CPA_US/EN)

EPCRA 313:

<u>CAS Number</u>	Chemical name
51-03-6	Piperonylbutoxide

CERCLA RQ

	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	67-64-1	Acetone
100 LBS	115-10-6; 64742-47-8	dimethyl ether; Distillates (petroleum), hydrotreated light
1 LBS	8003-34-7	Pyrethrins

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
PA	67-64-1	Acetone
	115-10-6	dimethyl ether
	124-38-9	carbon dioxide
NJ	67-64-1	Acetone
	115-10-6	dimethyl ether
	124-38-9	carbon dioxide
	51-03-6	Piperonylbutoxide

NFPA Hazard codes:

Health: 1 Fire: 3 Reactivity: 1 Special:

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

EXTREMELY FLAMMABLE.
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

Aerosol container contains flammable gas under pressure.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/11/08

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

Safety Data Sheet

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Revision date: 2022/11/08

Version: 12.0

Page: 15/15

(30507854/SDS_CPA_US/EN)

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET

Indoor Use (continued)

Cluster Flies, Clover Mites, Flies, Fruit Flies, Gnats, House Flies, Mosquitoes, Small Flying Moths and Stable Flies, Wasps and Bees: Perform directed spray and/or void treatments in infested areas. Inside Structural Voids: Locate all insect entrances and close all but one opening. Apply product through that opening.

Ants, Booklice, Clover Mites, Crickets, Millipedes, Roaches, Silverfish, Sowbugs and Spiders: Treat harborage areas such as behind baseboards, sinks, cabinets, meter boxes, door frames, corners of rooms and windows. Open and thoroughly ventilate the treated area before reoccupying.

Bed Bugs: Prior to inspection or treatment, have the resident remove and/or pick up clothing and other obstacles that may prevent thorough inspection or treatment; remove and sanitize infested bedding (pillows and linens), clothing or other items; and remove all clothes and other articles from dressers or closets. Thoroughly inspect area of suspected bed bug infestation and note potential harborage sites or actual infestations. Apply to mattresses as a spot treatment to seams, edges and tufts only. DO NOT apply directly on pillows, bed linens or clothes. DO NOT saturate the mattress; and DO NOT treat entire surface area of mattress. Advise resident to allow mattress to dry thoroughly before replacing pillows and/or bed linens. Bed bugs may also harbor in areas of the room away from the bed. Apply as a Crack & Crevice* or spot application where evidence of bed bugs occurs. This includes: bed frames, box springs, inside empty drawers and clothes closets, night stands and other furniture in the room, car pet edges, high and low wall moldings (such as floor molding or window casings), wall voids behind wall hangings and mirrors, wallpaper edges and popcorn ceilings. Take bed apart. Treat joints and channels if hollow, such as square or round tubing, and see that interior framework is treated. Apply as a surface application to carpeting, drapes and flooring. Allow all treated areas to dry thoroughly before use. Reapply every 7 to 10 days, as needed, until infestation is eliminated.

Crack & Crevice (in Residences): Hold product 36 inches above floor and direct spray toward floor and lower walls, treating at the rate of 10 seconds per 100 square feet. Also apply as a Crack & Crevice treatment to cracks and crevices near the source of the infestation. Clothes Moths: Locate source of infestation. Apply to nearby cracks and crevices and perform a space treatment of the infested area at the rate of 5 to 10 seconds per 1,000 cubic feet. To protect woolens and other keratin containing materials, brush clean then air out. Before treating entire article, treat a small hidden area of fabric to determine if staining will occur. Treat thoroughly by holding dispenser 2-18 inches from garment. Put treated articles in a darkened closet or other darkened storage such as cedar chests, storage drawers or sealable plastic fabric bags. Clean and treat inside of closets or storage areas at the rate of 1 second per 10 square feet before putting treated materials away. Repeat treatment every 6 months or as needed. Dry clean treated clothes before wearing.

Stored Product Pests - For Exposed Adult and Larval Stages of Angoumois Grain Moths (crawling), Carpet Beetles, Chocolate Moths, Cigarette Beetles, Confused Flour Beetles, Indian Meal Moths, Grain Weevils, Granary Weevils, Indian Meal Moths, Mediterranean Flour Moths (flying), Red Flour Beetles, Rice Weevils and Sawtoothed Grain Beetles: Apply as a Crack & Crevice, direct spray, or space spray treatment into cracks and crevices/corners of pantries, cabinets, food processing and handling equipment and other places where insects harbor. Apply around cartons, containers and other areas where these insects tend to congregate.

Flea (in Buildings): Hold product 36 inches above floor and direct spray toward floor and lower walls treating at the rate of 10 seconds per 100 square feet. Ensure that the underneath and lower surfaces of furniture are contacted. Keep area closed for 15 minutes. Open and thoroughly ventilate before reoccupying. Repeat treatment after 7 days if necessary.

Ticks: Hold container 36 inches above the floor and direct spray toward pet beds and resting quarters, treating at the rate of 10 seconds per 100 square feet. Apply as a Crack & Crevice treatment into recessed cracks and crevices such as behind baseboards and edges of carpet and floor covers. Treat heavy cracks such as upper door jams and window framing, behind pictures and other areas where females may crawl to lay eggs.

Food Handling Establishments

Food handling establishments are places other than private residences in which food is held, processed, prepared or served.

Food Areas: Include areas for receiving, serving, storing (dry, cold, frozen, raw), packing (canning, bottling, wrapping, boxing), preparing (cleaning, slicing, cooking, grinding), edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups).

Non-food Areas: Include areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage areas (after canning or bottling).

Apply according to specific directions for pests(s) to be treated. DO NOT make space spray applications to food areas when the facility is in operation. Prior to space spray applications, cover or remove exposed food and covered food processing surfaces, in the treatment area, or clean after treatment and before use.

Outdoor Use

Flies, Gnats and Mosquitoes - Ground Application: Treat landscapes and open areas around residence, out buildings and in campgrounds. Apply at a rate of 5 to 15 seconds per 1,000 square feet. Apply in wide swaths across the area to be treated. Allow treatment to penetrate dense foliage. Best results are obtained when wind speed is 5 miles per hour or less.

Bees, Flies, Cluster Flies, Clover Mites, Mud Daubers and Wasps: Apply directly on insects and their nests from approximately 18 inches. Disperse into hiding and breeding places (voids) contacting as many insects as possible.

Conditions of Sale and Warranty

The Directions For Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of such product. Ineffectiveness or other unintended consequences may result because of such factors as environmental conditions, presence of other materials, or use of the product in a manner inconsistent with its label, all of which are beyond the control of BASF CORPORATION (hereinafter "BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions For Use. Subject to the inherent risks, referred to above, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW: (A) BASF MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY, (B) BUYER'S EXCLUSIVE REMEDY AND BASF'S AND SELLER'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, AND (C) BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to these Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of BASF. PCS915

Contains no CFCs or other ozone depleting substances. Federal regulations prohibit CFC propellants in aerosols.

Clear Zone, Crack & Crevice, P.I., and PT are registered trademarks of BASF.

© 2019 BASF Corporation All rights reserved.

04338 14062 5

PT P.I.

Pressurized Contact Insecticide

Kills: Angoumois Grain Moths, Ants, Bees, Bed Bugs, Booklice, Carpet Beetles, Chocolate Moths, Cigarette Beetles, Clothes Moths, Clover Mites, Cluster Flies, Cockroaches, Confused Flour Beetles, Crickets, Drug Store Beetles, Earwigs, Fleas, Flies, Fruit Flies, Gnats, Grain Moths, Granary Weevils, House Flies, Indian Meal Moths, Mediterranean Flour Moths, Millipedes, Mosquitoes, Mud Daubers, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Silverfish, Small Flying Moths, Sowbugs, Spiders, Stable Flies, Ticks and Wasps For Use in and Around: Apartments, Campgrounds, Food Storage Areas, Homes, Hospitals*, Hotels, Motels, Nursing Homes*, Resorts, Restaurants* and other Food Handling Establishments*, Schools, Supermarkets, Transportation Equipment (Buses, Boats, Ships, Trains, Trucks and Aircraft - Cargo Areas Only), Utilities, Warehouses and other Commercial and Industrial Buildings.

*See use restrictions for these sites under Directions for Use.

Active Ingredients: Pyrethrins, a botanical insecticide 0.5%, Piperonyl Butoxide* 4.0%, Other Ingredients 95.5%, Total 100.0%

Contains petroleum distillate; (butylcarbitolylis-propylperonyl) ether and related compounds. EPA Reg. No. 499-444 EPA Est. No. 33595-MQ-4

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See side panels for Directions for Use, Storage and Disposal, Conditions of Sale and Warranty, and state-specific pest and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

First Aid table with sections for If swallowed, If on skin or clothing, and Hotline Number.

Precautionary Statements

Hazards to Humans and Domestic Animals CAUTION. Contains Petroleum Distillate. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Applicators and other handlers must wear the following: long-sleeved shirt, long pants, shoes and socks and chemical-resistant gloves. In addition to the above PPE, applicators logging with this product (applying as a space spray) in an enclosed area must wear a NIOSH-approved half-face, full-face, or hood-style particulate respirator with any R or P filter, or a NIOSH-approved powered air purifying respirator with HE filters.

USER SAFETY RECOMMENDATIONS

- Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other personal materials that have been drenched or heavily contaminated with product. DO NOT reuse them.

Environmental Hazards This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product has the potential to contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. This product is highly toxic to bees and other pollinating insects exposed to direct treatment on blooming crops or weeds. DO NOT apply this product or allow it to drift to blooming crops or weeds while bees and other pollinating insects are foraging the treatment area. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

Physical or Chemical Hazards Extremely Flammable. Contents under pressure. Keep away from fire, sparks and heated surfaces. DO NOT puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. DO NOT use this product in electrical equipment (where there is exposed wiring or contact points) due to the possibility of short circuits and shock hazard.

Net Contents: 1 pound, 2 ounces (18 ounces)

Product of USA, BASF logo, We create chemistry slogan, and contact information for BASF Corporation.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Use Restrictions

- Apply this product only as specified on this label. Not for use in outdoor residential misting systems (indoor or outdoor) or metered release devices. DO NOT apply more than 1 time/day. Product should only be used when air temperature is above 60°F. If air temperature is below 60°F, store at room temperature until a temperature above 60°F is reached. DO NOT apply this product in a way that will contact workers or other persons, either directly or through their clothing. Only protected applicators may be in the treatment area during application. Use only with the supplied actuator and injection tubes or other application equipment approved by the registrant. Remove pets, birds, cover fish aquariums and turn off air pump motor before application. DO NOT spray on plastic, painted, stained or varnished surfaces or directly into any electronic equipment such as radios, televisions, computers, etc. When used as a direct or space spray, DO NOT enter or allow others to enter treated area until sprays have dried. Remove or cover exposed food and drinking water, in the treatment area, before application. Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces in the treatment area, or wash them before use. Do not spray.

- DO NOT allow adults, children or pets to enter the treated area for at least 15 minutes, until vapors, mists and aerosols have dispersed and the treated area has been thoroughly ventilated. DO NOT remain in treated area. Exit area immediately and remain outside the treated area until aerosol, vapors and/or mists have dispersed. DO NOT wet articles to point of runoff or drip. DO NOT wet plants to the point of runoff or drip. DO NOT water the treated area to the point of runoff. DO NOT use treated articles until spray has dried. Do not direct application to clothing; dry clean treated clothes before wearing. When used in food handling and processing facilities, DO NOT make space spray applications while facility is in operation. Prior to space spray applications, cover or remove food and cover food processing surfaces, in the treatment area, or clean after treatment and before use. DO NOT use in aircraft cabins. When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking. DO NOT apply this product in hospital rooms while occupied or in any rooms occupied by the elderly or infirm. Remove patients from room prior to treatment and thoroughly ventilate (2 hours) after application. DO NOT return patients to room until after ventilation. DO NOT use in patient rooms in hospitals and nursing homes for treatment of bed bugs. DO NOT apply to classrooms when in use. DO NOT make outdoor applications during rain. All outdoor applications, if permitted elsewhere on this label, must be limited to spot or Crack & Crevice* application only, except for the following permitted uses, if allowed elsewhere on this label: 1. Applications to lawn or vegetation, as listed on this label, around structures; 2. Applications to soils, turf and other vegetation, as listed on this label; 3. Applications to the side of a building, up to a maximum height of 3 feet above grade; 4. Applications to underside of eaves, soffits, door or windows permanently protected from rainfall by a covering, overhang, awning or other structure; 5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed 1 inch in width; and 6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters or surface waters, in order to control occasional invaders or aggregating pests.

*Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies or aquatic habitat can occur. DO NOT allow this product to enter any drain during or after application.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Pesticide Storage: Store in a cool, dry (preferably locked) place away from heat and open flame, and in an area that is inaccessible to children and animals. Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance. Container Handling: DO NOT puncture or incinerate! If empty: Place in trash or offer for recycling, if available. If partly filled: Call your local solid waste agency for disposal instructions.

In Case of Emergency

- In case of large-scale spill of this product, call: CHEMTREC 1-800-424-9300 BASF Corporation 1-800-832-HELP (4357) In case of medical emergency regarding this product, call: Your local doctor for immediate treatment Your local poison control center (hospital) BASF Corporation 1-800-832-HELP (4357)

Application Instructions

Apply according to specific directions for pest(s) to be treated. Crack & Crevice Application: Inject this product into cracks and crevices or void spaces where insects may be harboring, living and breeding. Place injector tip into cracks, crevices, holes and other small openings. Apply product for 1 second. For light infestations, move injector tip along cracks while treating at the rate of 3 feet per second. For heavy infestations, move injector tip along at 1 foot per second. For treatment of inaccessible voids (including wall and equipment voids), calculate the void's cubic area and treat at the rate of 3 to 5 seconds per 3 cubic feet. Several holes may be required in long-running voids. Direct Spray: Apply the product in short bursts into the area where insects are to be contacted such as corners of the room, behind and under furniture or equipment. Apply from a distance of 18 to 24 inches from the surface and allow the material to drift to the area to be treated. The amount of product applied is not to exceed 10 seconds per room for residential areas or 10 seconds per 100 square feet for commercial areas. Space Spray: Turn off air conditioners, fans, close doors and windows before treating. Calculate the cubic footage of the area to be treated and apply as follows: Flying Insects: Apply at the rate of 1 to 3 seconds per 1,000 cubic feet. Crawling Insects: Apply at a rate of 20 seconds per 1,000 cubic feet. Disperse toward areas suspected of harboring the greatest insect infestations. Disperse in all locations containing as many insects as possible. Keep area closed for 15 minutes. Open and thoroughly ventilate before reoccupying.

Indoor Use

Apply this product as a Crack & Crevice treatment, space spray and/or direct spray. Apply according to the Application Instructions unless otherwise instructed below.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 1/16
(30628484/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

PT P.I. Pressurized Contact Insecticide

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 413986
EPA Registration number: 499-444
Synonyms: Pyrethrins + piperonyl butoxide

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Asp. Tox.	1	Aspiration hazard
Acute Tox.	4 (Inhalation - mist)	Acute toxicity
STOT SE	3 (Vapours may cause drowsiness and dizziness.)	Specific target organ toxicity — single exposure

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03

Page: 2/16

Version: 8.0

(30628484/SDS CPA US/EN)

Muta.	1B	Germ cell mutagenicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Skin Corr./Irrit.	2	Skin corrosion/irritation
Flam. Liq.	2	Flammable liquids
Carc.	1A	Carcinogenicity
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic
Flam. Aerosol	1	Flammable aerosols

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H340	May cause genetic defects.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P260	Do not breathe mist or vapour.
P280	Wear eye protection.
P243	Take action to prevent static discharges.
P202	Do not handle until all safety precautions have been read and understood.
P251	Do not pierce or burn, even after use.
P211	Do not spray on an open flame or other ignition source.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P240	Ground and bond container and receiving equipment.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 3/16
(30628484/SDS_CPA_US/EN)

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical attention.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P332 + P313	If skin irritation occurs: Get medical attention.
P391	Collect spillage.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
P331	Do NOT induce vomiting.
P337 + P313	If eye irritation persists: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P403 + P235	Store in a well-ventilated place. Keep cool.
P233	Keep container tightly closed.
P405	Store locked up.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
------	---

Hazards not otherwise classified

Labeling of special preparations (GHS):

Repeated exposure may cause skin dryness or cracking.
May produce an allergic reaction. Contains: Piperonylbutoxide
May cause paraesthesia. Pyrethrins

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Acetone

CAS Number: 67-64-1
Content (W/W): 50.0 - 75.0%
Synonym: Acetone

Distillates, petroleum

CAS Number: 64742-47-8
Content (W/W): 15.0 - 20.0%
Synonym: Distillates, petroleum, hydrotreated light

Petroleum gases, liquefied, sweetened

CAS Number: 68476-86-8
Content (W/W): 10.0 - 15.0%
Synonym: No data available.

Pyrethrins

CAS Number: 8003-34-7
Content (W/W): 0.5 %

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 4/16
(30628484/SDS_CPA_US/EN)

Synonym: Pyrethrins and Pyrethroids A complex substance which may be obtained by extraction of chrysanthemum flowers or may be made synthetically. Composed primarily of four esters of chrysanthemumcarboxylic acid (mon o and di). They are pyrethrin I and II and ci

Piperonylbutoxide
CAS Number: 51-03-6
Content (W/W): 4.0 %
Synonym: Piperonylbutoxide

4. First-Aid Measures

Description of first aid measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Do not give solids or liquids.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far
Hazards: Vomiting may cause aspiration pneumonia due to the ingredients.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Vomiting may cause aspiration pneumonia due to the ingredients.

5. Fire-Fighting Measures

Extinguishing media

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 5/16
(30628484/SDS_CPA_US/EN)

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide,
Aerosol container contains flammable gas under pressure. Pressure inside container is increased when heated, and may cause explosion. If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03

Version: 8.0

Page: 6/16

(30628484/SDS_CPA_US/EN)

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame.

Storage stability:

May be kept indefinitely if stored properly.

If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Protect from temperatures above: 130 °F

Explosive at or above indicated temperature.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Acetone	ACGIH, US:	TWA value 250 ppm ;
	ACGIH, US:	STEL value 500 ppm ;
	OSHA Z1:	PEL 1,000 ppm 2,400 mg/m3 ;
carbon dioxide	ACGIH, US:	TWA value 5,000 ppm ;
	ACGIH, US:	STEL value 30,000 ppm ;
	OSHA Z1:	PEL 5,000 ppm 9,000 mg/m3 ;
Distillates, petroleum	ACGIH, US:	TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures.
	ACGIH, US:	Skin Designation Non-aerosol (total hydrocarbon vapor); Danger of cutaneous absorption

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03

Version: 8.0

Page: 7/16

(30628484/SDS_CPA_US/EN)

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	characteristic, of acetone	
Odour threshold:	Not determined since harmful by inhalation.	
Colour:	pale straw yellow	
pH value:	approx. 6 - 8 (23 °C)	
Melting point:	approx. -95 °C Information applies to the solvent.	
Boiling point:	approx. 56 °C (1,013 hPa) Information applies to the solvent.	
Flash point:	-20 °C	(Tag closed cup)
Flammability:	not applicable	
Flammability of Aerosol	> 18 in	(ASTM D 3065)
Products:		
NFPA 30B flammability:	Level 3 Aerosol	
Lower explosion limit:	2.2 %(V)	(air)
Upper explosion limit:	9.5 %(V)	(air)
Autoignition:	approx. 465 °C Information applies to the solvent.	
Vapour pressure:	approx. 6,550 hPa (approx. 20 °C) approx. 246 hPa (20 °C) Information applies to the solvent.	

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 8/16
(30628484/SDS_CPA_US/EN)

Density:	approx. 0.80 g/cm ³ (20 °C)	
Vapour density:	not applicable	
<i>Information on: propane</i>		
Partitioning coefficient n-octanol/water (log Pow):	1.81 Study scientifically not justified.	(calculated)
<i>Information on: Distillates, petroleum</i>		
Partitioning coefficient n-octanol/water (log Pow):	> 3.0	(calculated)
<i>Information on: Acetone</i>		
Partitioning coefficient n-octanol/water (log Pow):	-0.24 (25 °C)	(Calculation Hansch/Leo)

Thermal decomposition:	carbon monoxide, carbon dioxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat. No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	approx. 0.83 mPa.s (22 °C)	
Solubility in water:	dispersible	
Evaporation rate:	not applicable	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

No substances known that should be avoided.
strong bases, strong acids, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 9/16
(30628484/SDS_CPA_US/EN)

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg

Inhalation

Type of value: LC50

Species: rat

Value: > 2.04 mg/l

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Possible narcotic effects (drowsiness or dizziness).

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: May cause slight irritation to the eyes. May cause slight irritation to the skin.

Skin

Species: rabbit

Result: non-irritant

Eye

Species: rabbit

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 10/16
(30628484/SDS_CPA_US/EN)

Result: non-irritant

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Buehler test

Species: guinea pig

Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Piperonylbutoxide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated inhalation of high doses. Repeated dermal uptake of the substance did not cause substance-related effects.

Information on: Acetone

Assessment of repeated dose toxicity: The substance may cause damage to the testes after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the hematological system after repeated ingestion of high doses. The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Information on: carbon dioxide

Assessment of repeated dose toxicity: Prolonged or repeated exposure by inhalation to high concentrations may cause circulatory insufficiency leading to headache, nausea, vomiting and potentially death.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Distillates, petroleum

Assessment of carcinogenicity: Long-term exposure to highly irritating concentrations resulted in skin tumors in animals. A carcinogenic effect in humans can be excluded after brief skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyrethrum

Assessment of reproduction toxicity: No reproductive toxic effects reported.

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 11/16
(30628484/SDS_CPA_US/EN)

Assessment of reproduction toxicity: Not classified, due to lack of data.

Information on: Acetone

Assessment of reproduction toxicity: As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information

Has a degreasing effect on skin.
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for fish.

Toxicity to fish

Information on: pyrethrum

LC50 (96 h) 0.0052 mg/l, Oncorhynchus mykiss (static)

LC50 (96 h) 0.01 mg/l, Lepomis macrochirus

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

LC50 (96 h) 3.49 mg/l, Cyprinodon variegatus (OECD Guideline 203, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

LC50 1.9 mg/l, Oncorhynchus mykiss

Information on: Distillates, petroleum

LL50 (96 h) 2 - 5 mg/l, Oncorhynchus mykiss (OECD Guideline 203, semistatic)

The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal values (confirmed by concentration control analytics)

Information on: Acetone

LC50 (96 h) 6,210 mg/l, Pimephales promelas (OECD 203; ISO 7346; 84/449/EEC, C.1, Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 5,540 mg/l, Oncorhynchus mykiss (Fish test acute, static)

Nominal concentration.

Toxicity to fish

Information on: pyrethrum

LC50 (96 h) 0.0052 mg/l, Oncorhynchus mykiss (static)

LC50 (96 h) 0.01 mg/l, Lepomis macrochirus

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 12/16
(30628484/SDS_CPA_US/EN)

Information on: Piperonylbutoxide

LC50 (96 h) 3.49 mg/l, *Cyprinodon variegatus* (OECD Guideline 203, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Aquatic invertebrates

Information on: pyrethrum

EC50 (48 h) 0.012 mg/l, *Daphnia magna*

EC50 (48 h) 0.0014 mg/l, *Mysidopsis bahia*

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

EC50 (48 h) 0.51 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, Flow through.)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

No observed effect concentration (28 d) 0.063 mg/l, aquatic arthropod (other)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. Limit concentration test only (LIMIT test).

Information on: Distillates, petroleum

EL50 (48 h) 1.4 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Acetone

LC50 (48 h) 8,800 mg/l, *Daphnia pulex* (*Daphnia* test acute, static)

Nominal concentration.

LC50 (24 h) 2,100 mg/l, *Artemia salina* (*Daphnia* test acute, static)

Nominal concentration.

Aquatic plants

Information on: pyrethrum

No toxic effects occur within the range of solubility.

Information on: 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-

EC50 (72 h) 3.89 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

No observed effect concentration (72 h) 0.824 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: Distillates, petroleum

EL50 (72 h) 1 - 3 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

No observed effect concentration (72 h) 1 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. A saturated solution has been tested. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 13/16
(30628484/SDS_CPA_US/EN)

Information on: Acetone

*Toxic limit concentration (8 d) 530 mg/l (biomass), Microcystis aeruginosa (DIN 38412 Part 9, static)
Nominal concentration.*

Information on: propane

EC50 (96 h) 7.71 mg/l, algae (calculated)

The product has not been tested. The statement has been derived from the structure of the product.

Chronic toxicity to fish

Information on: Piperonylbutoxide

No observed effect concentration (35 d) 0.18 mg/l, Pimephales promelas (OPP 72-4 (EPA-Guideline), Flow through.)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: pyrethrum

No observed effect concentration 0.0019 mg/l, Pimephales promelas

Chronic toxicity to aquatic invertebrates

Information on: Piperonylbutoxide

No observed effect concentration (21 d) 0.03 mg/l, Daphnia magna (OPP 72-4 (EPA-Guideline), Flow through.)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: pyrethrum

No observed effect concentration (28 d) 0.00086 mg/l, Daphnia magna

Bioaccumulative potential

Bioaccumulation potential

Information on: Piperonylbutoxide

Bioconcentration factor: 91 - 380 (28 d), Lepomis macrochirus (OECD Guideline 305 E)

Information on: pyrethrum

Bioconcentration factor: 471

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Piperonylbutoxide

Adsorption to solid soil phase is not expected.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 14/16
(30628484/SDS_CPA_US/EN)

Information on: pyrethrum

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Land transport

USDOT

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Proper shipping name: AEROSOLS

Sea transport

IMDG

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM
Marine pollutant: YES
Proper shipping name: AEROSOLS (contains ACETONE/DIMETHYLKETONE, PIPERONYLBUTOXIDE)

Air transport

IATA/ICAO

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1
Proper shipping name: AEROSOLS, FLAMMABLE

Further information

DOT: This product may be classified as ORM-D (Consumer Commodity) or Limited Quantity. After 12/31/2020, ORM-D will not apply.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03
Version: 8.0

Page: 15/16
(30628484/SDS_CPA_US/EN)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
51-03-6	Piperonylbutoxide

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	67-64-1	Acetone
1 LBS	8003-34-7	Pyrethrins

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
PA	67-64-1	Acetone
	124-38-9	carbon dioxide
	64742-47-8	Distillates, petroleum
MA	67-64-1	Acetone
	124-38-9	carbon dioxide
	64742-47-8	Distillates, petroleum
NJ	67-64-1	Acetone
	124-38-9	carbon dioxide
	64742-47-8	Distillates, petroleum
	51-03-6	Piperonylbutoxide

NFPA Hazard codes:

Health: 1 Fire: 4 Reactivity: 1 Special:

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

EXTREMELY FLAMMABLE.

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

HARMFUL IF ABSORBED THROUGH SKIN.

Avoid contact with the skin, eyes and clothing.

Safety Data Sheet

PT P.I. Pressurized Contact Insecticide

Revision date : 2022/02/03

Version: 8.0

Page: 16/16

(30628484/SDS_CPA_US/EN)

Wash thoroughly after handling.
Avoid inhalation of mists/vapours.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/02/03

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 9, 2015

Heather Klamer
Senior Registration Specialist
S.C. Johnson & Son, Inc.
1525 Howe Street; MS 149
Racine, WI 53403

Subject: Label Notification per PRN 98-10 – Addition of optional marketing statement
Product Name: KJM
EPA Registration Number: 4822-574
Application Date: December 16, 2014
Decision Number: 498509

Dear Ms. Klamer:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

If you have any questions, you may contact Elizabeth Fertich at 703-347-8560 or via email at fertich.elizabeth@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis", enclosed in a large, hand-drawn oval.

Kable Bo Davis, Product Manager 3
Invertebrate and Vertebrate Branch 1 (IVB1)
Registration Division (7505P)
Office of Pesticide Programs

KJM

[Alternate Brand Name: Raid Yard Guard Mosquito Fogger]

ACTIVE INGREDIENTS

Prallethrin..... 0.04%
Cyfluthrin..... 0.03%
OTHER INGREDIENTS..... 99.93%
Contains sodium nitrite

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements on back

NET WT.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

SHAKE BEFORE USING

Do not apply directly to food or to food serving or food preparation surfaces. Do not apply to pets or to your skin or clothing. Do not allow children or pets to contact treated surfaces until spray has dried. Do not spray indoors.

For flying insects: Flies, mosquitoes, non-biting gnats, small flying moths, wasps, hornets and multi-colored asian lady beetles.

Hold can on a slight downward angle. Point nozzle away from face, other people and animals. Spray toward area being treated. Allow spray to drift over area and settle. From 4 to 6 feet away, spray articles and vegetation in the area including plant leaves and foliage, furniture (except seating and table top surfaces), tents, outdoor screening, deck railings, campers, and other surfaces that pests may contact or rest upon. For best results, spray when air is calm. IF BREEZY, spray with the wind. IF NOT BREEZY, spray out from center of area being treated. Give special attention to breeding areas such as garbage cans and compost piles.

STORAGE AND DISPOSAL

STORAGE: Store in a cool, dry place away from heat, sparks and open flame.

DISPOSAL: Do Not Puncture or Incinerate! If empty: This container may be recycled in the few but growing number of communities where (steel) aerosol can recycling is available. Before offering for recycling, empty the container (can) by using the product according to the label. If recycling is not available, place in trash. If partially filled: Call your local solid waste agency or 800-529-3394 for disposal instructions.

[The steel graphics symbol will be used if label space allows it.]



NOTIFICATION

4822-574

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

01/09/2015

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.

(Contains no CFCs or other ozone depleting substances. Federal Regulations prohibit CFC propellants in aerosols.) [optional graphic]



(Made in [country])

[website may be listed]

Questions? Comments?

Call 800-558-5252 or Write Helen Johnson

Sold by: © [year] S. C. Johnson & Son, Inc.

Racine, WI 53403-2236 U.S.A.

All Rights Reserved

EPA Reg. No. 4822-574

EPA Est. No.

[Optional Marketing Claims]



(New) Outdoor Fresh® (Scent(ed))

(New) Country Fresh® (Scent(ed))

(New) Forest Fresh (Scent(ed))

Fast acting (formula)

Fast and easy

Kills on contact

Kills and repels

Area repellent

Mosquito killer

One step fogger

Easy to use!

Use with confidence!

Outdoor (Mosquito) Fogger

Sprays (Kills flying insects) up to 20 feet away

Repels (Kills) (Effective Against) (flies) (mosquitoes) (non-biting gnats) (small flying moths) (hornets) (multi-colored Asian lady beetles)

(Raid) Kills Bugs DEAD®!

Keeps bugs away (for) (hours) up to 6 hours

Repels (Repellency) (Kills) (Lasts) for (up to) 6 hours

Provides a (virtually) bug free outdoor area for (up to) 6 hours

Repels (and) (Kills) flying insects

Spray KJM before your event to kill (repel) flies (mosquitoes) (non-biting gnats) (small flying moths) (hornets) (multi-colored Asian lady beetles) up to 20 feet away

For yard(s) and deck(s) (and) (campsites)

Covers up to 900-1000 ft² (30' x 30')

Covers an average size patio (deck)

Ideal for backyards (decks) (and) (patios) (and) (campsites)

Proven (Large)(Area) (Coverage) (repellency) (kill)

Whole (Entire) yard (campsite) coverage

Yard (&) (Patio) (Deck) (Campsite) Fogger

Backyard (Campsite) coverage

Pre-treat your yard (pre-treatment)

Spray on areas to be treated

Fast acting (repellency) (kill) (coverage) up to 6 hours

Kills insects where they live

No hose required (needed) (necessary)

Repels (and) (Kills) (Lasts against) (Outdoor activity without) (annoying) mosquitoes up to 6 hours! (in your outdoor living space (campsite))

Repels (and) (Kills) (Lasts against) (Outdoor activity without) (annoying) (flies) (mosquitoes) (non-biting gnats) (small flying moths) (hornets) (multi-colored Asian lady beetles) (and) (other) (outdoor) (insects) (as listed) up to 20 feet away! (for up to 6 hours) (in your outdoor living space (campsite))

Repels (Kills) (house flies) annoying bugs

Affordable mosquito (repellency) (kill)

Kills mosquitoes that may carry (transmit) West Nile Virus, (LaCrosse Encephalitis), (St. Louis Encephalitis), (Eastern Equine Encephalitis), (Western Equine Encephalitis), (Cache Valley Encephalitis)

An outdoor product for use in outdoor areas including backyards, patios, decks and picnic areas (and) (campsites)

Repels (and) (Kills) bugs up to 20 feet away

(Repels) (Kills) (Effective against) flies, (mosquitoes) (non-biting gnats).

(Also) kills (repels) (effective against) small flying moths, (wasps), (and) (multi-colored asian lady beetles)

For Outdoor Use Only

Contains (2) (3) (4) (16 oz) foggers

Buy one get one free

Bonus (Value) (Twin) pack

"X"% More Free

S.C. Johnson (& Son) (Wax)

A Family Company ([logo])

Since 1886

Fisk Johnson [signature]

Peel (remove) (tear) label (sticker) (coupon) (here) for complete use directions

Peel (remove) (tear) label (sticker) (coupon) (here) for complete use directions and precautionary statements

Peel (remove) (tear) label (sticker) (coupon) (here) before use

Read entire label before use

Apply this product only as specified

Visit [website] to identify your bug and best treatment plan

(Additional) Tips (Non-chemical Control Options): [one or more to be chosen from the following list]

Do not leave doors and windows open.

Inspect screens for holes and loose edges that may allow flies and wasps to enter.

Flies breed in decaying matter. Remove these sources in yards and garbage areas before flies start to breed.

Caulk hiding spots and points of entry from outside or neighboring units.

To prevent mosquito breeding remove standing water from your yard.

Raid Defense System (Defense System)

- Attack(s) Bugs*
- Control(s) Bugs†
- Prevent(s) Bugs‡

Raid Defense System (Raid Guided Support) helps you work smarter, not harder, to fight bugs. Visit raidkillsbugs.com to identify your bug and best treatment plan.

Use this product to:

- Control Bugs
- Kill bugs at the source (Kill the bugs you don't see)

† Use this product to kill (Use to kill) flies (mosquitoes) (flies and mosquitoes) (flies, mosquitoes and other listed bugs) (keeping bugs away) for up to 6 hours.

Use other Raid products to:

- Attack Bugs
- Kill bugs on contact (Kill the bugs you see)

* Use a Raid Flying Insect Killer product to kill flies (mosquitoes) (flies and mosquitoes) (flies, mosquitoes, and other listed bugs) on contact. Read the label to find the right product for your bug problem.

- Prevent Bugs
- Help keep bugs out (Keep Bugs Out)

‡ Use a Raid Max Bug Barrier product outdoors where flying bugs may land or enter to help keep (to keep) bugs out (of your home). Or, spray this product around window and door frames and any other areas where bugs may rest (such as under eaves, near porches, and around light fixtures, cords, and railings). Do not spray surfaces with more than one pest control product. Read the label to find the right product for your bug problem.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : RAID® YARD GUARD® MOSQUITO FOGGER

Recommended use : Insecticide

Manufacturer, importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +18005585252

Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

Hazard classification	Hazard category	Hazards identification
Aerosol	Category 2	Flammable aerosol.
Gases under pressure	Liquefied gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Flame
Gas cylinder

Signal word

Warning

Hazard statements

Flammable aerosol.
Contains gas under pressure; may explode if heated.

Precautionary statements

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Protect from sunlight. Store in a well-ventilated place.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
Butane	106-97-8	10.00 - 30.00
Isobutane	75-28-5	5.00 - 10.00
Propane	74-98-6	1.00 - 5.00
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	1.00 - 5.00
Prallethrin	23031-36-9	0.0001 - 0.10
Cyfluthrin	68359-37-5	0.0001 - 0.10

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact** : No special requirements
- Skin contact** : No special requirements
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Aerosol Product - Containers may rocket or explode in heat of fire. Do not allow run-off from fire fighting to enter drains or water courses.
- Further information** : Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

containers. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Remove all sources of ignition.
Wear personal protective equipment.
Wash thoroughly after handling.

- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
Use appropriate containment to avoid environmental contamination.
Outside of normal use, avoid release to the environment.

- Methods and materials for containment and cleaning up** : If damage occurs to aerosol can:
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Use only non-sparking equipment.
Dike large spills.
Clean residue from spill site.

7. HANDLING AND STORAGE

- Handling**
- Precautions for safe handling** : Avoid contact with skin, eyes and clothing.
Do not enter places where used or stored until adequately ventilated.
For personal protection see section 8.
Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.
Pressurized container.
Do not pierce or burn, even after use.

- Advice on protection against fire and explosion** : Keep away from sources of ignition - No smoking.
Do not spray on an open flame or other ignition source.

Storage

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Requirements for storage areas and containers : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep away from food, drink and animal feedingstuffs. Keep in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH STEL
Propane	74-98-6	-	1,000 ppm	-	ACGIH TWA
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA TWA
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	1,200 mg/m3	152 ppm	-	SUPPLIER

Personal protective equipment

- Respiratory protection** : Do not spray in enclosed areas.
- Hand protection** : No special requirements.
- Eye protection** : No special requirements.
- Skin and body protection** : No special requirements.
- Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Form	:	aerosol
Form	:	Compressed gas
Color	:	white
Odor	:	pleasant
Odour Threshold	:	No data available
pH	:	7.44
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	< -7 °C < 19.4 °F Method: Tag Closed Cup (TCC) Propellant
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper/lower flammability or explosive limits	:	No data available
Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	0.9953 g/cm ³

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Solubility(ies)	:	soluble	
Partition coefficient: n-octanol/water	:	No data available	
Auto-ignition temperature	:		
Decomposition temperature	:		
Viscosity, dynamic	:		
Viscosity, kinematic	:	No data available	
Oxidizing properties	:	No data available	
Volatile Organic Compounds Total VOC (wt. %)*	:	24 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations	
Other information	:	None identified	:

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents Do not mix with bleach or any other household cleaners. Strong bases
Hazardous decomposition products	:	Thermal decomposition can lead to release of irritating gases and vapours.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

11. TOXICOLOGICAL INFORMATION

- Emergency Overview** : Warning
- Acute oral toxicity** : LD50
estimated
> 5,000 mg/kg
- Acute inhalation toxicity** : GHS LC50 (dust and mist)
estimated
> 5.2 mg/l
- Acute dermal toxicity** : LD50
estimated
> 5,000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

**RAID® YARD GUARD® MOSQUITO FOGGER**

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Aggravated Medical Condition : None known.**12. ECOLOGICAL INFORMATION****Product** : The product itself has not been tested.**Toxicity**

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time
Butane	No data available			
Isobutane	LC50	Fish	27.98 mg/l	96 h
Propane	LC50	Fish	27.98 mg/l	96 h
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	LC50	Fish	> 1,028 mg/l	96 h
Prallethrin	LC50	Oncorhynchus mykiss (rainbow trout)	0.012 mg/l	96 h
Cyfluthrin	LC50	Oncorhynchus mykiss (rainbow trout)	0.000302 mg/l	96 h
	NOEC	Oncorhynchus mykiss (rainbow trout)	0.000010 mg/l	58 d

Toxicity to aquatic invertebrates

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

**RAID® YARD GUARD® MOSQUITO FOGGER**

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Components	End point	Species	Value	Exposure time
Butane	No data available			
Isobutane	LC50	Daphnid	16.33 mg/l	48 h
Propane	LC50	Daphnid	14.22 mg/l	48 h
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50 No data available		> 3,193 mg/l	48 h
Prallethrin	EC50	Daphnia magna (Water flea)	0.0062 mg/l	48 h
Cyfluthrin	LC50 No data available		0.000062 mg/l	48 h
	NOEC	Daphnia magna (Water flea)	0.00002 mg/l	21 d

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Butane	No data available			
Isobutane	EC50	Green alga	8.57 mg/l	96 h
Propane	No data available			

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50	Skeletonema costatum	3,198 mg/l	72 h
Prallethrin	No data available	Pseudokirchneriella subcapitata (green algae)	2 mg/l	96 h
Cyfluthrin	ErC50	Pseudokirchneriella subcapitata (microalgae)	> 8.05 mg/l	72 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Butane	100 %	385.5 h	Readily biodegradable
Isobutane	70 %	< 10 d	Readily biodegradable
Propane	70 %	< 10 d	Readily biodegradable
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	No data available		
Prallethrin	No data available		Not readily biodegradable.
Cyfluthrin	No data available		Not readily biodegradable.

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Butane	No data available	2.89
Isobutane	1.57 - 1.97	2.8
Propane	No data available	2.36
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	No data available	No data available
Prallethrin	No data available	4.49
Cyfluthrin	854	No data available

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Mobility

Component	End point	Value
Butane	No data available	
Isobutane	No data available	
Propane	No data available	
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	No data available	-
Prallethrin	No data available	
Cyfluthrin	Koc	123930

PBT and vPvB assessment

Component	Results
Butane	Not fulfilling PBT and vPvB criteria
Isobutane	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
Prallethrin	Not fulfilling PBT and vPvB criteria

Other adverse effects : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

PESTICIDAL WASTE:

For disposal information, please read and follow Disposal instructions on the pesticide label.

Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

	Land transport	Sea transport	Air transport
UN number	1950	1950	1950
UN proper shipping name	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1
Transport hazard class(es)	2.1	2	2.1
Packing group	-	-	-
Environmental hazards	-	-	-
Special precautions for user	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.

15. REGULATORY INFORMATION

FIFRA Labeling

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

Following is the hazard information as required on the pesticide label:

CAUTION:

Flammable.

Contents under pressure.

Exposure to temperatures above 130° F may cause bursting.

This pesticide is toxic to fish and aquatic invertebrates.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

Registration # / Agency

4822-573/US/EPA

4822-574/US/EPA

16. OTHER INFORMATION

HMIS Ratings

Health	1
Flammability	4
Reactivity	0

NFPA Ratings

Health	1
Fire	4
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
-------------	--

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® YARD GUARD® MOSQUITO FOGGER

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000017062

SPECIMEN

Metaflumizone

Group

22B

Insecticide

Siesta®

Insecticide Fire Ant Bait

For control of fire ants

Active Ingredient:

metaflumizone* (CAS No 139968-49-3): 0.063%

Other Ingredients: 99.937%

Total: 100.000%

* (E/Z)-2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]hydrazinecarboxamide

EPA Reg. No. 7969-232

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.

Net Contents:

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
We create chemistry

FIRST AID

If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• DO NOT induce vomiting unless told to do so by the poison control center or doctor.• DO NOT give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.• Call a poison control center for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may contact BASF Corporation at 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if absorbed through skin or swallowed. May cause moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly with plenty of soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Applicators or other handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR Part 170), such as agricultural plants grown for commercial or research purposes on farms; in forests, nurseries and commercial greenhouses must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Metaflumizone has the potential to bioaccumulate in

aquatic and terrestrial organisms, and may affect the reproduction of birds, mammals, reptiles, and amphibians if not used in accordance with the label directions and restrictions. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Cover, clean up, or incorporate granules that are spilled. Keep spilled granules out of all sewers and open bodies of water. **DO NOT** apply this product directly to bodies of water such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, or commercial fishponds. **DO NOT** contaminate water when disposing of equipment washwaters.

Product Information

Siesta® Insecticide Fire Ant Bait is an insecticidal bait for fire ant control that can be used to treat existing fire ant infestations. **Siesta** is highly attractive to imported and native fire ants (*Solenopsis* spp.). Worker ants find the bait and carry it into the mound as food for the colony. The bait is eaten, fed to the queen, and the mound is destroyed. Further information regarding fire ants may be obtained from your cooperative agricultural extension service.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Use Restrictions

- Aerial application of this product is prohibited.
- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and commercial greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Resistance Management

For resistance-management, **Siesta® Insecticide Fire Ant Bait** contains a **Group 22B** insecticide. Any insect population may contain individuals naturally resistant to **Siesta** and other **Group 22B** insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of **Siesta** or other **Group 22B** insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of **Siesta** per season.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide

resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance, contact your local BASF representative.

Specific Use Directions

Non-WPS Uses

Use **Siesta** outdoors to control imported and native fire ants. **Siesta** is for use on lawns, turf, landscaped areas, golf courses, industrial/municipal sites, other outdoor noncrop/nongrazed areas, such as airports, roadsides, cemeteries, commercial grounds, parks, school grounds, picnic grounds, athletic fields and other recreational areas; on grounds surrounding poultry houses (excluding runs and ranges) or corrals and other animal holding areas; outdoors areas where companion animals (such as horses and llamas) are kept; these companion animals CANNOT be used for food or feed; and outdoor areas around residences and residential areas, commercial and other structures, warehouses, hotels, motels, supermarkets, hospitals, and nursing homes. Avoid direct exposure of **Siesta** granules to animals.

WPS Uses

Siesta may be used on sod farms and in nurseries in and around container or field-grown ornamental and nursery stock, including citrus, stone fruit, pomefruit, pecan, walnut, and almond. **DO NOT** graze or feed lawn or sod clippings to livestock.

DO NOT apply to the soil around fruit and nut trees more than 4 times per year.

Application Instructions

Siesta can be applied:

- In nurseries in and around container or field-grown fruit and nut tree stock;
- In nurseries in and around container or field-grown ornamental and nursery stock;
- On lawns, turf, landscaped areas, golf courses, sod farms, industrial/municipal sites, other outdoor non-crop/non-grazed areas, such as airports, roadsides, cemeteries, commercial grounds, parks, school grounds, picnic grounds, athletic fields and other recreational areas;
- On grounds surrounding poultry houses (excluding runs and ranges) or corrals and other animal holding areas;
- Outdoor areas where companion animals (such as horses and llamas) are kept; these companion animals CANNOT be used for food or feed.
- Outdoor areas around residences and residential areas, commercial and other structures, warehouses, hotels, motels, supermarkets, hospitals, and nursing homes;
- Outdoor areas (other than orchards) described above which include bearing and/or nonbearing pome, stone, citrus, and nut trees.

Siesta® Insecticide Fire Ant Bait may also be applied to nonbearing fruit and nut trees, vines, brambles and bushberries grown in commercial ornamental nurseries. Nonbearing trees, vines, brambles and bushberries are grown in ornamental production nurseries where immature and/or inedible fruits of nuts or berries may appear on the tree, vine, bramble and bush but are not intended for harvest or consumption.

Apply **Siesta** at the first sign of fire ant activity. For best results, apply **Siesta** in the early morning or late afternoon when ants are most active. Ants are most active when temperatures are above 60° F. **DO NOT** apply when the ground is saturated with water, heavy dew, or when heavy rains are expected within 12 hours. **DO NOT** water-in granules after application. Wait at least 12 hours after application before irrigating treated area. For best results, allow 7 days after bait application before applying a contact insecticide to the bait treated area.

Broadcast Treatments

Use broadcast equipment capable of applying 1.5 pounds of **Siesta** per acre. Calibrate and adjust equipment prior to application to ensure that the proper rate of product will be applied. If needed, retreat after 4 to 8 weeks.

DO NOT make broadcast application within 10 feet of perennial fresh water or estuarine water bodies (brackish water). Fresh water bodies include: lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, and commercial fishponds. Estuarine or brackish water bodies include: tidal water such as bays, mouth of rivers, salt marshes, and lagoons. Active fire ant mounds, in the required 10 ft buffer zone, may only be treated by the individual mound treatment described below.

For Individual Mound Treatments and Container-grown Plants

Apply 1 to 2 ozs (2 to 4 level TBSP) of **Siesta** per mound, uniformly distributing the product 3 to 4 feet around the mound. If needed, retreat after 4 to 8 weeks.

Use Rate for Siesta

Treatment	Product Use Rate per Application	Directions
Broadcast: Imported and native fire ants	3.0 ozs/5000 sq ft 1.5 lbs/A	Broadcast bait uniformly using a handheld or walk-behind spreader or motorized mechanical equipment. Around structures, lightly sprinkle the product evenly in a band approximately 1 to 2 feet wide around the foundation of the building. Repeat application as necessary.
For Individual Mounds Including Mounds in Areas of Container-grown Plants: Imported and native fire ants	1.0 to 2.0 ozs (2 to 4 TBSP)	Uniformly distribute the bait 3 to 4 feet around the perimeter of the mound.
Restrictions: DO NOT exceed 6.0 lbs/A total or 4 applications per calendar year. When treating individual mounds, DO NOT treat more than 12 mounds/A per single application. DO NOT disturb the mound during application. DO NOT apply to top of mound.		

Reapplication Instructions

Siesta may provide control for up to 8 weeks (or longer) depending on environmental conditions. Rainfall within 12 hours of application may reduce the effectiveness of **Siesta** and a repeat application may be necessary to achieve desired level of control. Bait may be reapplied every 4 to 8 weeks if control appears to be fading.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. This product is formulated in an oil bait. Prolonged exposure to air may turn oil rancid and reduce the attractiveness of the bait. Use within 3 months after opening.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Handling (for plastic containers)

Nonrefillable Container. DO NOT reuse or refill this container. After completely emptying container into application equipment, offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(for paper or plastic bags)

Nonrefillable Container. DO NOT reuse or refill this container. Completely empty container into application equipment by shaking and tapping sides and bottom to loosen clinging particles. When completely empty, offer for recycling if available, or dispose of empty bag in a sanitary landfill, or by other procedures approved by state and local authorities.

Consult federal, state, or local disposal authorities for approved alternative procedures.

In Case of Spill:

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case this material is released or spilled:

- Sweep up and place in a suitable container for disposal or use according to label directions.
- Remove contaminated clothing and wash affected skin areas with water. Wash clothing before reuse.
- Keep spills out of all sewers and open bodies of water.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

PCS309

Siesta is a registered trademark of BASF.

© 2021 BASF Corporation
All rights reserved.

007969-00232.20210629.NVA 2021-04-263-0087

Based on: NVA 2018-04-263-0065
Supersedes: NVA 2017-04-263-0034

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709


We create chemistry

Metaflumizone

Group

22B

Insecticide

Supplemental Label

Siesta®

Insecticide Fire Ant Bait

For control of fire ants in outdoor areas where companion animals (such as horses and llamas) are kept

This supplemental label expires on July 31, 2023, and must not be used or distributed after this date.

Active Ingredient:

metaflumizone* (CAS No 139968-49-3): 0.063%

Other Ingredients: 99.937%

Total: 100.000%

*(E/Z)-2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]hydrazinecarboxamide

EPA Reg. No. 7969-232

CAUTION/PRECAUCION

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- The supplemental labeling and the entire **Siesta® Insecticide Fire Ant Bait** container label, EPA Reg. No. 7969-232, must be in possession of the user at the time of application.
- Read the label affixed to the container for **Siesta** before applying.
- Use of **Siesta** according to this labeling is subject to the use precautions and use restrictions imposed by the label affixed to the container for **Siesta**.

Application Instructions

Refer to the **Siesta** container label for use rates and other application instructions.

Siesta can be applied to:

- Outdoor areas where companion animals (such as horses and llamas) are kept; the animals CANNOT be used for food or feed.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

PC309

Siesta is a registered trademark of BASF.

© 2020 BASF Corporation
All rights reserved.

007969-00232.20200716c.NVA 2018-04-263-0064

Based on: NVA 2018-04-263-0065

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**

We create chemistry

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 1/13
(30602291/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

Siesta Insecticide Fire Ant Bait

Recommended use of the chemical and restriction on use

Recommended use*: insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 166881
EPA Registration number: 7969-232
Molecular formula: C24 H16 F6 N4 O2
Chemical family: semicarbazones
Synonyms: metaflumizone

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Sens.	1	Skin sensitization
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date ; 2018/08/20
Version: 4.0

Page: 2/13
(30602291/SDS_CPA_US/EN)

Pictogram:



Signal Word:
Warning

Hazard Statement:

H317 May cause an allergic skin reaction.
H402 Harmful to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280 Wear protective gloves.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
139968-49-3	0.063 %	Metaflumizone
8001-22-7	15.0 - 25.0%	Soybean oil
96-48-0	0.1 - 1.0%	Gamma-butyrolactone

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 3/13
(30602291/SDS_CPA_US/EN)

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, hydrogen fluoride, halogenated hydrocarbons, To be archived: Hydrocarbons,
If product is heated above decomposition temperature, toxic vapours will be released.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 4/13
(30602291/SDS_CPA_US/EN)

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition. Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed. Protect from temperatures above: 40 °C

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 5/13
(30602291/SDS_CPA_US/EN)

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Soybean oil	OSHA PEL	PEL 5 mg/m ³ Respirable fraction ; PEL 15 mg/m ³ Total dust ; TWA value 15 mg/m ³ Total dust ; TWA value 5 mg/m ³ Respirable fraction ;
-------------	----------	---

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 6/13
(30602291/SDS_CPA_US/EN)

separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	granules
Odour:	mild, of vegetable oils
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	yellow
pH value:	approx. 5 - 7 (1 %(m), 25 °C) (as a dispersion)
Melting point:	not applicable, The substance / product decomposes therefore not determined.
Boiling point:	The product is a non-volatile solid., not applicable
Flash point:	approx. 176.7 °C Information based on the main components.
Flammability:	not determined
Vapour pressure:	not applicable
Bulk density:	300 kg/m ³
Vapour density:	not applicable
Self-ignition temperature:	not self-igniting Information based on the main components.
Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, hydrogen fluoride, halogenated hydrocarbons, To be archived: Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.
Solubility in water:	dispersible
Molar mass:	506.40 g/mol
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20

Version: 4.0

Page: 7/13

(30602291/SDS_CPA_US/EN)

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, hydrogen fluoride, halogenated hydrocarbons, To be archived: Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

No mortality was observed.

Inhalation

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Metaflumizone

Type of value: LC50

Species: rat (male/female)

Value: > 5.2 mg/l

Exposure time: 4 h

Type of value: LC50

Species: rat (male/female)

Value: > 20.8 mg/l (calculated)

Exposure time: 1 h

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 8/13
(30602291/SDS_CPA_US/EN)

Dermal

Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg
No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: May cause slight irritation to the skin. May cause slight but temporary irritation to the eyes.

Skin

Species: rabbit
Result: Slightly irritating.

Eye

Species: rabbit
Result: non-irritant

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

No sensitizing effect.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

Assessment of repeated dose toxicity: Repeated oral exposure may affect certain organs.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 9/13
(30602291/SDS_CPA_US/EN)

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. May cause harm to children via breast-feeding.

Other Information

The data on toxicology refer to the active ingredient.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms and / or effects are not known so far

Medical conditions aggravated by overexposure

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Toxicity to fish

Information on: Metaflumizone

LC50 (96 h) > 0.257 mg/l, Cyprinodon variegatus

Aquatic invertebrates

Information on: Metaflumizone

EC50 (48 h) > 0.173 mg/l, Daphnia magna

Aquatic plants

Information on: Metaflumizone

EC50 (120 h) > 0.313 mg/l (biomass), Pseudokirchneriella subcapitata

EC50 (7 d) > 0.4 mg/l, Lemna gibba

Chronic toxicity to fish

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

No observed effect concentration (41 d) > 0.00115 mg/l, Cyprinodon variegatus

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 10/13
(30602291/SDS_CPA_US/EN)

Assessment of terrestrial toxicity

Acutely harmful to terrestrial organisms.

Other terrestrial non-mammals

Information on: Metaflumizone

LC50, Anas platyrhynchos

LC50, Colinus virginianus

LD50 1.65 ug/bee, Apis mellifera

LD50 > 2,000 mg/kg, Colinus virginianus

> 2,000 mg/kg, Anas platyrhynchos

Acutely very toxic to honeybees.

Acutely toxic to terrestrial organisms.

Persistence and degradability

Elimination information

Not readily biodegradable (by OECD criteria).

Assessment biodegradation and elimination (H2O)

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

Bioconcentration factor: 1,071, Pimephales promelas

Based on a weight of evidence, the compound will not bioaccumulate.

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Hydrazinecarboxamide, 2-[2-(4-cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene]-N-[4-(trifluoromethoxy)phenyl]-

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 11/13
(30602291/SDS_CPA_US/EN)

Other ecotoxicological advice:
The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

This product is not regulated by RCRA.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20
Version: 4.0

Page: 12/13
(30602291/SDS_CPA_US/EN)

BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 1 Special:

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

Causes eye irritation.

HARMFUL IF ABSORBED THROUGH SKIN.

HARMFUL IF SWALLOWED.

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

Avoid contact with the skin, eyes and clothing.

May produce an allergic reaction.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2018/08/20

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO

Safety Data Sheet

Siesta Insecticide Fire Ant Bait

Revision date : 2018/08/20

Page: 13/13

Version: 4.0

(30602291/SDS_CPA_US/EN)

OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION
GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET



Sumilarv[®] 0.5G

PYRIPROXYFEN	GROUP	7C	INSECTICIDE
--------------	-------	----	-------------

Sachets (WSP)

Specimen Label

- Controlled release insect growth regulator formulation to break mosquito life-cycle
- Prevents adult mosquito emergence (*including those which may transmit West Nile virus*)
- Prevents mosquitoes from becoming breeding, biting adults
- Easy to apply
- Non-flushing formulation
- Works well even in areas that dry out and rewet

ACTIVE INGREDIENTS:

2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine.....	0.50%
OTHER INGREDIENTS	99.50%
	100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

See inside for First Aid and Precautionary Statements

Sumilarv[®] 0.5G Sachets (WSP):

Each Sumilarv[®] 0.5G Sachets (WSP) contains 0.5% w/w of the active ingredient pyriproxyfen. Sumilarv 0.5G Sachets (WSP) come packaged in 25g pouches or sachets. Each contains pyriproxyfen granules packed in a water soluble and biodegradable PVA (Poly Vinyl Alcohol) film.

Pyriproxyfen is an insect growth regulator which is similar to a naturally-occurring insect growth regulator (Juvenile Hormone) and acts on the immature life stages of mosquitoes. When mosquito larvae are exposed to pyriproxyfen, it inhibits the emergence of adult mosquitoes. In treated water, larvae do not develop into normal pupae, and these are unable to emerge as adults.

These granules are specifically designed to release sufficient dose of pyriproxyfen in standing (polluted/unpolluted) water to prevent emergence of adult mosquitoes. At the labeled dose, effective levels of pyriproxyfen (approx. 1 part per billion or greater) are reached in a given volume of water within a day of placement or after an exchange of water in the receptacle after treatment.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ALL DIRECTIONS COMPLETELY BEFORE USE.

USE RESTRICTIONS:

- Apply this product only as specified on the EPA approved label and any supplemental labeling.
- Do not apply more than 0.1 lbs. pyriproxyfen per acre per year or 20 lbs. of Sumilarv 0.5G Sachets (WSP) per year.
- In the treatment of corral lots, feedlots, swine lots and zoos, cover any exposed drinking water, drinking water fountains, and animal feed before application.
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PESTICIDE RESISTANCE MANAGEMENT

For resistance-management, Sumilarv 0.5G Sachets (WSP) contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to Sumilarv 0.5G Sachets (WSP) and other Group 7C insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of Sumilarv 0.5G Sachets (WSP) or other Group 7C insecticides with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate Sumilarv 0.5G Sachets (WSP).
- Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance-management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance-management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.

Monitor after application for unexpected target pest survival. The Sumilarv 0.5G Sachets (WSP) only targets juvenile insects. If the level of pest emergence suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact MGK Company representatives at 1-888-740-8712.

Sumilarv 0.5G Sachets (WSP) contain a Group 7C insecticide. Insect biotypes with acquired resistance to Group 7C may eventually dominate the insect population if Group 7C insecticides are used repeatedly or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Sumilarv 0.5G Sachets (WSP) or other Group 7C insecticides.

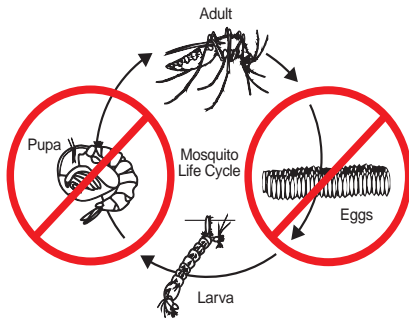
To delay insecticide resistance consider:

- Avoiding the consecutive use of Sumilarv 0.5G Sachets (WSP) or other Group 7C insecticides that have a similar target site of action, on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect population for loss of field efficacy.

MOSQUITO SPECIES CONTROLLED:

Pyriproxyfen effectively controls several mosquito species which can vector Zika virus, West Nile virus, Yellow Fever, Dengue, Eastern equine encephalitis (EEE), Western equine encephalitis (WEE), St. Louis encephalitis (SLE), and dog heartworm in the USA. These include:

- Aedes aegypti*
- Ae. albopictus*
- Ae. vexans*
- Anopheles quadrimaculatus*
- Culex pipiens*
- Cx. quinquefasciatus*
- Cx. tarsalis*
- Cx. restuans and other Cx. spp.*
- Ochlerotatus stimulans*
- Ochlerotatus nigromaculis*
- Ochlerotatus taeniorhynchus*
- Ochlerotatus sollicitans*
- Ochlerotatus triseriatus*
- Psorophora columbiana*



Introduction of Sumilarv 0.5G Sachets (WSP) into larval habitats where mosquitoes breed and develop will prevent adult mosquito emergence and affects reproductive viability of exposed mosquito eggs and adult female mosquitoes. Frequency of application will depend on three factors: dose rate, water quality (e.g. pollution) and dilution caused by rainfall or removal and replenishment of water within the treatment site. Note: presence of actively swimming larvae after a Sumilarv 0.5G Sachets (WSP) treatment is normal. Sumilarv 0.5G Sachets (WSP) does not act until the pupal stage of a mosquito.

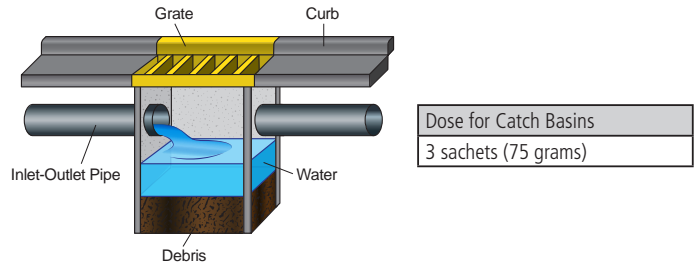
APPLICATION TO CATCH BASINS

Individual catch basins are one of the main breeding sites for mosquitoes that can transmit West Nile virus and cause biting nuisance in urban, suburban and rural environments. Sumilarv 0.5G Sachets (WSP) can be applied to catch basins by dropping them in at the rate specified on this label.

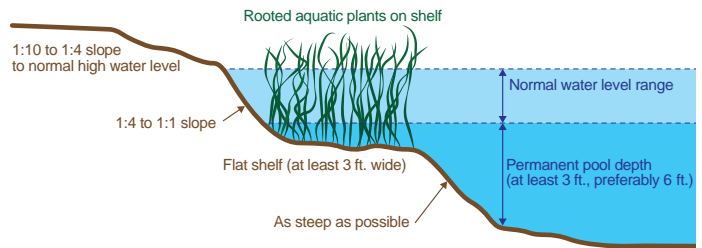
The granules may be applied as a pre-treatment to mosquito breeding catch basins or during the season to catch basins containing mosquito larvae. Once applied, Sumilarv 0.5G Sachets (WSP) will be unaffected by dry, hot, cold or sunny conditions and will begin working when the catch basin is flooded during rain events until the active ingredient degrades below effective levels.

For urban or suburban catch basin applications, Sumilarv 0.5G Sachets (WSP) provides up to 6 weeks of continuous control with one single (75g) treatment. Sumilarv 0.5G Sachets (WSP) non-flushing sand granule evenly distributes within the catch basin and slowly releases AI to an elution point. During dry periods, Sumilarv 0.5G Sachets (WSP) remains active and will continue to deliver results once water returns to the catch basin. This non-flushing formulation stays in the catch basin while providing slow and consistent release of the AI. Sumilarv 0.5G Sachets (WSP) is a novel mode of action in Vector control and enhances vector control treatment protocols while providing additional resistance management solutions to their integrated mosquito management programs.

One 75g dose of Sumilarv 0.5G Sachets (WSP) will provide 6 weeks of continuous control, even when exposed to significant rain events. Simply scoop and scatter the non-flushing sand granules through the grate of the catch basin.



APPLICATION TO WATER RETENTION or WATER DETENTION PONDS
Typical Water Retention Pond or Storm Water Detention Pond/Basin



To determine the volume of water in gallons for a specific treatment site, use the following formulation and calculation method:

Total cu. ft. of target treatment site (ft. ³) = surface area (ft. ²) x average depth (ft.)

Note: 7.5 gallons per cu. ft.

Total water volume = Total cu. ft. of treatment site x 7.5 gallons

Application Rates to Use for the Control of Mosquito Larvae

Treatment site (Volume of Water in Gallons)	Water Depth Less than or Equal to (ft.)	Amount of Sumilarv 0.5G Sachets (WSP)	lb. AI Sumilarv
0 – 500	1	1	0.00028
500 – 1500	2	2	0.00055
1500 – 3000	4	3	0.00083
3000 – 4500	6	4	0.0011
4500 – 6000	8	5	0.00138

Treatments should be made every 4-5 weeks for water retention or water detention ponds depending on the volume water or frequency of rain events. Apply at the rate specified in the application rate table above to the following sites:

TEMPORARY OR PERMANENT WATER HOLDING SITES:

Ornamental ponds, fountains, cesspools, abandoned swimming pools, gutters, construction site depressions, septic tanks, flooded basements, gutters, animal waste lagoons, livestock runoff lagoons, sewers, waste water impoundments associated with organic pollutants & industrial runoffs, waste settling ponds, tire tracks, landfills, salvage yards, tire dumps, vehicle impounds, junk yards, manmade depressions and vegetation-choked phosphate pits.

NATURAL AND ARTIFICIAL WATER HOLDING CONTAINERS:

Tires, hollow trees and tree holes, potted plants, bird baths, rain barrels, flooded roof tops, flower pots, buckets, and abandoned vehicles.

FIRST AID

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption. Do not apply to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE:

Keep this product in its tightly closed original container. Store in a cool dry (preferably locked) area that is away from water, other pesticides fertilizers, veterinary supplies, food or feed, in a place that is inaccessible to children and animals.

PESTICIDE DISPOSAL:

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of empty container in a sanitary landfill, or by other procedures approved by state and local authorities.



Sumilarv®
0.5G

Sachets (WSP)

EPA Reg. No. 1021-2818
EPA Est. No. 1021-MN-2
Rev. 0820-1120



Sumilarv® is a registered trademark of Sumitomo Chemical Co., Ltd.
MGK® is a registered trademark of McLaughlin Gormley King Company.
Manufactured for MGK®. ©2020 MGK. All rights reserved.
7325 Aspen Lane North, Minneapolis MN 55428



SAFETY DATA SHEET

Issue Date: 10-Feb-2020

Revision Date: 10-Feb-2020

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Sumilarv® 0.5G Sachets (WSP)

EPA Registration Number: 1021-2818

Other means of identification

Part Code: 29361

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:

McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA

FAX #:

(763) 544-6437

Telephone Number: (800) 645-6466, or (763) 544-0341

e-Mail Address: mgk-sds@mgk.com

Emergency telephone number

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300

International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments:

MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:

This chemical is **not** considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

Emergency Overview

Appearance: Yellow

Physical state: Solid

Odor: Slight

Precautionary Statements - Prevention:

P270 - Do not eat, drink or smoke when using this product

Precautionary Statements - Response:

P321 - Specific treatment (see Section 4/ First Aid).

Precautionary Statements - Storage:

P404 - Store in a closed container

Precautionary Statements - Disposal:

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Pyriproxyfen (NYLAR®)	95737-68-1	0.50

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures**Eye contact:**

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion:

If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

Inhalation:

Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note to physicians:

For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂).

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

Environmental precautions: See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection:	Protective eyewear is recommended, but is not required.
Skin and body protection:	Protective gloves are recommended, but are not required.
Respiratory protection:	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General Hygiene Considerations:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Solid
Appearance:	Yellow
Odor	Slight
Odor threshold:	No information available
Color (Gardner Scale):	No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	No information available	
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	No information available	

Evaporation rate:	No information available
Flammability (solid, gas):	No information available
Upper flammability limit (UEL):	No information available
Lower flammability limit (LEL):	No information available
Vapor pressure:	No information available
Vapor density:	No information available
Specific Gravity:	No information available
Water solubility:	No information available
Partition coefficient; n-Octanol/ Water:	No information available
Autoignition temperature:	No information available
Decomposition temperature:	No information available
Kinematic viscosity:	No information available
Dynamic viscosity:	No information available
Refractive Index:	No information available

Other Information:

Bulk density	Relative Density = 2.06 @ 22° C
VOC Content (%):	1

<u>Miscibility/ Solubility:</u>	
Water:	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD₅₀	>5,000 mg/kg (rat)
Dermal LD₅₀	>2,000 mg/kg (rat)
Inhalation LC₅₀	No data available.
Eye contact:	Minimal eye irritation. (rabbit).
Skin Contact:	Minimal skin irritation. (rabbit).
Sensitization:	Negative. (guinea pig).
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:**Persistence and degradability**

No information available.

Bioaccumulation

No information available.

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3077
Proper Shipping Name: Environmentally Hazardous Substance, solid, n.o.s.,(Pyriproxyfen mixture)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard

Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the

Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:

California Proposition 65:

This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2818

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 0	Flammability 1	Instability 0	Physical and Chemical Properties
<u>HMIS</u>	Health hazards 0	Flammability 1	Physical hazards 0	- Personal protection X

*Chronic Hazard Star Legend * = Chronic Health Hazard*

Issue Date: 10-Feb-2020
Revision Date: 10-Feb-2020
Revision Note: - New SDS.

SDS Prepared By: Troy Azzivitto, MGK® Chemistry Department.
e-Mail Address: mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet

Summit

B.t.i. BRIQUETS™

FLOATING SUSTAINED-RELEASE LARVICIDE FOR LONG-TERM CONTROL OF MOSQUITO AND PSYCHODID FLY LARVAE

BIOLOGICAL CONTROL OF MOSQUITOES & PSYCHODID FLIES

ACTIVE INGREDIENT: *Bacillus thuringiensis* subspecies *israelensis* solids, spores and insecticidal toxins.....10.31%

INERT INGREDIENTS:.....89.69%

7000 *Aedes aegypti* (AA) International Toxic Units (ITU) per milligram primary powder (Dry weight basis)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

PRECAUTIONARY STATEMENTS

Keep Out Of Reach Of Children

CAUTION

Hazard to Humans: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Environmental Hazards: Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID

If in eyes

Hold eye open and rinse slowly and gently for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call poison control center or doctor for treatment advise.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Storage: Tightly close containers of unused briquets/dunks. Store in cool, dry well-ventilated place.

Disposal: Do not reuse empty carton or packaging material. Perforate or crush and discard carton according to local trash disposal regulations.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Summit *B.t.i.* BRIQUETS/DUNKS are formulated to release effective levels of Bti for a period of 30 days or more under typical environmental conditions. The floating action of the briquets/dunks will ensure that active material is released at the surface as well as gradually settle to the bottom.

These briquets/dunks may be used in all types of mosquito breeding areas. To prevent briquets/dunks from being flushed out of certain treatment sites, they can be anchored using string tied through the hole in the center or staked in place.

Summit *B.t.i.* BRIQUETS/DUNKS can also be used for pre-flood treatment. If the briquets/dunks are applied to dry areas which are known or suspected to become breeding sites when flooded, such as woodland pools and abandoned swimming pools, the briquets will float to the surface when flooding occurs and start releasing the active Bti material. Alternate wetting and drying will not reduce their effectiveness.

General Information; Mosquito Dunks float on water and will keep on working for 30 days or longer under typical environmental conditions. While floating, they slowly release a long-term, biological mosquito larvicide at the water's surface. This larvicide gradually settles in the water where it is eaten by mosquito larvae growing there. Mosquito Dunks may be used in all standing water sites where mosquito larvae grow. Alternate wetting and drying will not reduce their effectiveness.

APPLICATION RATES

Mosquito Larvae:

Flooded larvae breeding sites: Use one (1) Summit *B.t.i.* BRIQUET/DUNKS for up to 100 sq. ft. of surface area, regardless of depth. In water with a high organic content, such as sewage disposal systems or waste lagoons, the application rate may have to be increased to as much as four (4) times the normal dosage based upon evaluation by the user.

When larval populations are high, aquatic vegetation dense, or the water highly polluted at the time of briquet/dunks use, pre-treatment with SUMMIT MOSQUITO BITS® is recommended. The briquet/dunks will then suppress larval development for up to 30 days or more. Some larvae which hatch after briquet/dunks application may partially develop before dying. Allow a minimum of 48 hours for their control.

Pre-Flood treatment: Apply one (1) Summit *B.t.i.* BRIQUET/DUNKS to each 100 sq. ft. of dry bed surface which is known or suspected breeding site when flooded.

Evaporative Coolers: Apply one (1) Summit *B.t.i.* BRIQUET/DUNKS to each 100 sq. ft. of Cooler box or for smaller Coolers refer to the table below for application rate.

SAFE FOR USE IN FISH HABITATS

EACH DUNK KILLS MOSQUITOES FOR 30 DAYS OR LONGER KILLS MOSQUITOES BEFORE THEY ARE OLD ENOUGH TO BITE

Outdoor Use around the Household to kill Mosquito Larvae: Summit *B.t.i.*

BRIQUETS/DUNKS can be broken into portions for use in many outdoor applications near the household, such as standing water in bird baths, old automobile tires, rain barrels, ponds, abandoned or unused swimming pools (particularly above ground types), ditches, tree holes, roof gutters for collecting rainwater, flower pots, animal watering troughs or any other locations near the household where water collects and remains for periods of time. Summit *B.t.i.*

BRIQUETS/DUNKS can be broken and used as shown in the following table, the amount dependent upon the surface area of water in the treatment site. Mosquito Dunk / Bti Briquets may also be used in any containerized standing water found near the home.

Surface area of standing water	1 to 5 square ft.	5 to 25 square ft.	25 to 100 square ft.	Above 100 square ft.
Use Quantity	1/4 Briquet /Dunk	1/2 Briquet /Dunks	1 Briquet /Dunks	1 Briquet/Dunks per100 sq. ft.

Preflood treatment around the Household: Apply Summit *B.t.i.* BRIQUETS/DUNKS to any dry surface which is known to become flooded after a rain. Use the correct amount in accordance with the above dosage table.

INDOOR USE: For use in areas that collect water from time to time areas such as elevator shafts, basements that flood, sump pumps and any drainage areas within buildings. Use the correct amount in accordance with the above dosage table.

Psychodid Fly Larvae (Filter Flies, Sewage Flies, Drain Flies):

Waste WaterTreatment Plants: Place Summit *B.t.i.* BRIQUETS/DUNKS in a perforated basket, such as a minnow bait basket, and suspend the basket in the waste water stream before the water enters the trickling filter. Keep basket continuously filled with Briquets/Dunks to ensure a steady flow of Bti into the filter. The number of Briquets/Dunks needed for continuous, effective treatment in each facility will be dependent upon the volume and flow rate of the stream. This will have to be determined by the user.

Summit Chemical Co./SUMMIT RESPONSIBLE SOLUTIONS

Baltimore, MD 21224

EPA Registration No. 6218-47

EPA Est. No. 6218-MD-2

Net weight: 0.458 oz. per Briquet/Dunks

Or

13 grams per Briquet/Dunks

Contains 20 Briquets/Dunks

Lot. No:

Summit® Mosquito Dunks® / BTI Briquets (vers. 04/29/2015)

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday March 26 2012 / Rules and Regulations

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product name: **Summit® Mosquito Dunks® / BTI Briquets**
USEPA Registration No.: 6218-47

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.3 Details of the Supplier of the safety data sheet

Summit Chemical Company
235 S. Kresson Street
Baltimore, MD 21224-2616
800-227-8664
Summitchemical.com
US EPA Establishment No. 6218-MD-2

1.4 Emergency Telephone Number

CHEMTREC 800-262-8200

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of Substance or Mixture

Classification (GHS-US)
Not Classified

2.2 Label Elements

GHS-US Labeling
No labeling applicable

2.3 Other Hazards

No additional information available

2.4 Unknown Acute Toxicity

No Data Available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS MIXTURE

NAME	PRODUCT IDENTIFIER	%	CLASSIFICATION
<i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> solids, spores and insecticidal toxins* 7,000 aedes egypti (AA) International Toxic Units (ITU) per mg of primary powder.	None: Microbial active ingredient	10.31	Not classified

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

First Aid Measures General

: Never Give anything by mouth to an unconscious person. If You feel unwell, seek medical advice (show the label where possible)

First Aid Measures after Inhalation

: Assure fresh air breathing. Allow the victim to rest.

First Aid measures after skin contact

: Remove affected clothing and wash all exposed skin area with Mild soap and water, followed by warm water rinse.

First aid measures after skin contact

: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First aid measures after ingestion

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

4.2 Most Important symptoms and effects, both acute and delayed

Symptoms/injuries

: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

: Foam. Dry powder. Carbon Dioxide. Water Spray. Sand

Unsuitable Extinguishing Media

: Do not use heavy water stream

5.2 Special Hazards Arising from the Substance or Mixture

No additional information available.

5.3 Advice For Firefighters

Firefighting instructions

: None

Protection during Firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, Protective Equipment and Emergency Procedures

General Measures

: Isolate from fire, if possible, without unnecessary risk.

6.1.1 For Non-Emergency Personnel

Emergency Procedures

: Evacuate unnecessary personnel.

6.1.2 For Emergency Responders

Protective Equipment : Equip Cleanup crew with proper protection
Emergency Procedures : Ventilate Area

6.2 Environmental Precautions

Prevent entry to sewers and public waters.

6.3 Methods and Material for Containment and Cleaning Up

See Heading 8. Exposure controls and personal protection

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Precautions for Safe Handling : Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking tobacco, or chewing gum and when leaving work.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions : Keep only in the original container with original label in a cool, well ventilated place away from Children. Keep Container closed when not in use.

Incompatible Products : Strong bases, acids.

Incompatible Materials : Sources of Ignition

7.3 Specific End Use(s)

No additional information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

<i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> solids, spores and insecticidal toxins* 7,000 aedes egypti (AA) International Toxic Units (ITU) per mg of primary powder.		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³

8.2 Exposure Controls

Personal protective Equipment : Avoid all unnecessary exposure.
Hand protection : Wear protective gloves.
Eye Protection : Chemical Goggles or safety glasses.
Respiratory protection : Wear approved mask.
Other information : When using do not eat, drink, or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State : Solid
Color : Light Brown
Odor : Mild
Odor Threshold : No data available.
pH : NA

Relative Evaporation rate (butyl acetate=1) : No data available
 Melting Point : No data available
 Freezing Point : No data available
 Boiling Point : No data available
 Flash Point : No data available
 Self Ignition Temperature : No data available
 Decomposition Temperature : No data available
 Flammability (solid, gas) : No data available
 Vapor Pressure : No data available
 Relative vapor density at 20 degrees C : No data available
 Relative density : No data available
 Density : No data available
 Solubility : No data available

9.2 Other Information

No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No additional information available.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Not established

10.4 Conditions to Avoid

Heat. Extremely High Temperatures

10.5 Incompatible Materials

No Data Available

10.6 Hazardous Decomposition Products

None

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute Toxicity : Not classified

<i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> solids, spores and insecticidal toxins* 7,000 aedes egypti (AA) International Toxic Units (ITU) per mg of primary powder.	
LD50 oral rat	➤ 10000 mg/kg (Rat)
LD50 dermal rabbit	➤ 10000 mg/kg (Rabbit)

Skin corrosion/irritation : Not classified

Serious Eye damage/irritation : Not classified

Respiratory or skin sensitization : Not Classified

Germ Cell Mutagenicity : Not Classified

Carcinogenicity : Not Classified

Bacillus thuringiensis subspecies *israelensis* solids, spores and insecticidal toxins*

7,000 aedes egypti (AA) International Toxic Units (ITU) per mg of primary powder.	
IARC Group	3- Not Classifiable

Reproductive Toxicity : Not Classified
 Specific Target Organ Toxicity (Single Exposure) : Not Classified
 Specific Target Organ Toxicity (Repeated Exposure) : Not Classified
 Aspiration Hazard : Not Classified
 Potential Adverse Human Health Effects and Symptoms : Based on available data, the classification criteria are not met

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and Degradability

Summit® Mosquito Dunks® BTI Briquets	
Persistence and Degradability	Not Established

Summit® Mosquito Dunks® BTI Briquets	
Persistence and Degradability	Contains readily biodegradable component(s)

12.3 Bioaccumulative Potential

Summit® Mosquito Dunks® BTI Briquets	
Bioaccumulative Potential	Not established

Summit® Mosquito Dunks® BTI Briquets	
Bioaccumulative Potential	No bioaccumulation data available.

12.4 Mobility in Soil

No additional information available

12.5 Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations :Dispose in a safe manner in accordance with local/national regulations.
 Ecology – Waste Materials : Avoid Release into the environment

SECTION 14: TRANSPORT INFORMATION

In accordance with DOT
Non dangerous good in sense of transport regulations
Additional Information
Other information

: No supplementary information
Available

ADR

Transport document description
Transport by Sea
No additional information available.
Air Transport
No additional information available.

SECTION 15: REGULATORY INFORMATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION: KEEP OUT OF REACH OF CHILDREN

Causes moderate eye irritation.

15.1 US Federal Regulations

Summit® Mosquito Dunks® BTI Briquets
Not listed on the United States TSCA (Toxic Substances Control Act) Inventory

Summit® Mosquito Dunks® BTI Briquets
Not listed on the United States TSCA (Toxic Substances Control Act) Inventory

15.2 International Regulations

CANADA

No Additional Information Available

EU-Regulations

No Additional Information Available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.3 US State Regulations

Summit® Mosquito Dunks® BTI Briquets

SECTION 16: OTHER INFORMATION

Other Information

: None



Suspend[®]

POLYZONE[™]

- Maintain control with fewer applications
- Remains efficacious for up to 90 days on aggressive substrates, like high pH concrete or cement
- Better, more uniform distribution of AI particles than possible with conventional SC formulations
- Exclusive PolyZone technology creates a microscopic polymer film that protects AI from weather, precipitation, irrigation and mechanical abrasion
- Exclusive PolyZone technology binds AI to surface, and slowly releases over time to achieve extended control

ACTIVE INGREDIENT:

*Deltamethrin 4.75%

OTHER INGREDIENTS:..... 95.25%

TOTAL: 100.00%

*Contains 0.42 lb deltamethrin per gallon.

EPA Reg No. 432-1514

**STOP - READ THE LABEL
BEFORE USE.
KEEP OUT OF REACH OF
CHILDREN.
CAUTION**

Net Contents
1 Gallon

84105120

84129828B 140204AV2a

Ants • Bed Bugs • Spiders



For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day
1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867

FIRST AID	
If in eyes:	<ul style="list-style-type: none">• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency call toll free the Bayer Environmental Science Emergency Response Telephone No. 1-800-334-7577.	
Note To Physician: No specific antidote is available. Treat the patient symptomatically.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Use with care when applying in areas adjacent to any body of water. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.

PHYSICAL & CHEMICAL HAZARDS

Do not use water-based sprays of Suspend[®] PolyZone in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

Product Facts:	
	<ul style="list-style-type: none">• Residual Control that lasts for up to 90 days.• Longer residual means fewer applications required, reducing the number of applications required to maintain control.• Compared to SC formulations, this product improves rain fastness.• Exclusive formulation technology creates a microscopic polymer film that protects AI from weather, precipitation, irrigation and mechanical abrasion.
Suspend PolyZone	This product is a suspension concentrate formulation containing 0.42 lb of deltamethrin per gallon. This product is designed for use both indoors and outdoors and will provide effective knockdown and long residual control of the pests listed on this label. For residential, industrial and institutional control of major nuisance and public health pests listed on the label. Will not damage paints, plastics, fabrics or other surfaces where water alone causes no damage.
Controls	<ul style="list-style-type: none">• Indoor, General Household Pests• Outdoor/ Perimeter Pests• Wood-Infesting Pests <i>For list of specific insects, see inside</i>

(continued)

Product Facts (cont.):	
Where to Apply	<ul style="list-style-type: none"> • Apply where pests have been seen or found, or can find shelter. • In and around buildings and structures • On established landscape ornamentals around residential and commercial properties
Dilution Rates	<ol style="list-style-type: none"> 1. When 1.5 fluid ounces (45.4 milliliter) is diluted in one gallon of water, the active ingredient concentration is equivalent to 0.06% deltamethrin. Use of the 1.5 fluid ounce (0.06%) rate is recommended for severe pest infestations or when longer residual control is desired. 2. When 0.75 fluid ounce (22.7 milliliter) is diluted in one gallon of water, the active ingredient concentration is equivalent to 0.03% deltamethrin. Use of the 0.75 fluid ounce (0.03%) rate is recommended for initial service or clean out treatments. 3. When 0.25 fluid ounce (7.5 milliliter) is diluted in one gallon of water, the active ingredient concentration is equivalent to 0.01% deltamethrin. Use of the 0.25 fluid ounce (0.01%) rate is recommended for maintenance treatments.
Mixing Information	<p>This product is intended to be mixed with water and applied with hand pressurized or power operated sprayers. Shake this product well before measuring concentrate for dilution in water. Mix the appropriate amount of this product with water. Thoroughly shake, agitate, or invert sprayer to insure proper suspension. If spraying is interrupted when using a back-pack or hand-held sprayer, invert sprayer to re-suspend the dilution before starting to make applications. Diluted spray mixture can be stored overnight, but agitate well before using. If spray screens are used, they should be 50 mesh or larger.</p>
Tank mixing	<p>This product may be tank-mixed with other registered pesticides unless expressly prohibited by the product label. A small volume mixing test with other products is recommended to ensure compatibility. Observe all restrictions and precautions which appear on the labels of these products.</p>
How to Apply	<p>General surface applications, spot treatments, crack & crevice sprays, or void injections by sprays, mists, or foams. Foliar application to established landscape ornamentals.</p>
Re-Apply	<p>Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.</p>
Re-Entry	<p>Avoid contact with treated surfaces until dry. People and pets may re-enter after the treated area is dry.</p>
Questions	<p>For questions or comments, call toll free 1 800 331-2867</p>

DIRECTIONS FOR USE

**It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Do not formulate this product into other end-use products**

INDOOR PESTS				
Indoor applications to residential buildings and structures may only be made as a spot treatment, crack and crevice applications or void (spray, mist, foam) injections. This includes schools, factories, stores, warehouses, hospitals, food processing facilities (non food/feed areas), and modes of transportation. For a list of common facilities where this product may be used, see Appendix.				
Ants	Centipedes	Darkling beetles	Fleas	Hide beetles
Bed bugs	Clothes moths	Dermestids	Flesh flies	Hornets
Blue/green bottle flies	Cluster flies	Earwigs	Flies	House flies
Boxelder bugs	Cockroaches	Elm leaf beetles	Fruit flies	Leather beetles
Carpet beetles	Crickets	Firebrats	Gnats	Midges

(continued)

INDOOR PESTS (cont.)			
Millipedes	Pantry pests, beetles & moths	Scorpions	Ticks
Moths	Phorid flies	Silverfish	Wasps
Multi-colored Asian lady beetles	Pillbugs	Sowbugs	Yellowjackets
	Sciarid flies (fungus gnats)	Spiders	
Where to Apply	<p>Treat where pests have been seen or found, or can find shelter.</p> <p>Treat areas where pests normally feed or hide, such as baseboards, corners, around water pipes, behind and under refrigerators, cabinets, sinks and stoves.</p> <p>This product can be applied to walls, floors, ceilings, in and around cabinets, between, behind and beneath equipment and appliances, around floor drains, window and door frames and around plumbing, sinks and other possible pest harborage sites. Treat entry points around water pipes, utility penetrations, windows, doors, vents and eaves.</p> <p>Void applications can be made behind veneers, piers, and chimney bases, into rubble foundations, into block voids and structural voids, wall voids, under slabs, stoops, porches or to the soil in crawlspaces, and other similar voids.</p> <p>Spot treat floors, floor coverings, carpets or rugs for flea and tick control; DO NOT treat entire floor area.</p>		
Use Rate	<p>0.01% - - 0.25 fluid ounce (7.5 milliliter) per gallon</p> <p>0.03% - - 0.75 fluid ounce (22.7 milliliter) per gallon</p> <p>0.06% - - 1.50 fluid ounce (45.4 milliliter) per gallon</p>		
How to Apply (see Application for Indoor Pests)	<p><u>Spot Applications</u></p> <ul style="list-style-type: none"> • Use a low pressure system (do not exceed 50 psi at nozzle tip) with a fan-type nozzle to uniformly apply spot treatments in and around cupboards, and beneath, between and behind equipment or appliances. • In the home, all food processing surfaces and utensils should be covered before treatment or thoroughly washed following treatment. Cover exposed food or remove from area being treated. <p><u>Spray, Mist or Foam Crack and Crevice or Void Applications</u></p> <ul style="list-style-type: none"> • <u>Spray</u>: Spray, mist or foam directly into cracks and crevice or voids where pests or their nests are present. Apply the volume of spray, mist, or foam sufficient to cover the area. • <u>Spray</u>: Use a low pressure system (do not exceed 50 psi at nozzle tip) with a pin-point or variable pattern nozzle to apply the spray mixture to areas such as floors, cracks and crevices in and around baseboards, walls, expansion joints, areas around water and sewer pipes or utility penetrations, and voids created by equipment and appliances. • <u>Mist</u>: Use appropriate mist generating equipment. Do not allow mist to drift out of void spaces into commonly occupied areas of structure. • <u>Foam</u>: Use foam to treat structural voids and control pests in walls, under slabs or other void areas. Using appropriate foam generating equipment, mix dilution with manufacturers specified volume of foaming agent and apply sufficient volume of foam. 		
When to Apply	<p>When pests are seen or found.</p> <p>Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.</p>		
Restrictions	<p>Do not apply in food/feed areas of food and feed handling establishments.</p> <p>Do not apply broadcast treatments to floors or floor coverings.</p> <p>Do not apply as a space spray.</p> <p>Remove or tightly cover fish tanks and disconnect aerators during application.</p> <p>Keep people and pets away from sites of application until treated area has dried.</p> <p>When treating areas directly over your head, wear eye protection (safety glasses, goggles or face shield) and dust/mist mask or respirator.</p>		

APPLICATION FOR INDOOR PESTS	
Cockroaches, Ants, Crickets, Silverfish, Firebrats, Centipedes, Millipedes, Clothes Moths, Earwigs, Pillbugs, Sowbugs, Scorpions and Spiders	Apply as a coarse, low pressure (do not exceed 50 psi at nozzle tip) spot or crack and crevice spray to areas that these pests normally inhabit. Pay particular attention to dark corners of rooms and closets; floor drains; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators, and cabinets; around plumbing and other utility installations; doors, windows and in attics and crawl spaces. Spot applications may be made to floor surfaces along baseboards and around air ducts. Let surfaces dry before allowing people or pets to contact surfaces.
Pantry Pest Control	To kill adult and accessible immature stages of insects such as lesser grain borers, grain weevils, flour beetles, saw-toothed grain beetles, cigarette beetles, merchant grain beetles, Angoumois grain moths, Mediterranean flour moths, Indian meal moths, grain mites and spider mites: Make applications to cupboards, shelving and storage areas. Remove all foodstuffs, all utensils, shelf paper, and other objects before spraying. Allow all treated surfaces to dry before replacing foodstuffs, utensils or other items. Any foodstuff accidentally contaminated with any spray solution must be discarded.
Crawling and Flying Insect Pests Flies, Gnats, Midges, Mosquitoes, Cockroaches, Ants and Silverfish	Apply directly to walls, ceilings, window screens and other resting areas as a residual surface treatment. May be used inside residential buildings, as well as in and around carports, garages, storage sheds, unoccupied barns, stables, or pet kennels.
Ants Including Pharaoh's ant	Apply to trails, around doors and windows and other areas where ants inhabit or enter premises.
Bed Bugs	Spray bed bugs and eggs directly wherever possible following site directions below. For infested mattresses, remove linens and wash before reuse. Apply to mattresses, especially tufts, folds, and edges until moist. Allow to dry before re-making bed. Apply to bedsprings, box springs, and the interior of bed frames or headboards, including all cracks and crevices. When bed bugs are found in upholstered furniture, apply only to the infested tufts, seams, folds and edges, but do not make broadcast applications to flat surfaces where prolonged human contact will occur. If bugs heavily infest furniture (inside cushions and/or batting) apply a labeled insecticide dust or consider fumigation. Apply as a crack and crevice treatment to all baseboards, moldings, beneath floor coverings and carpets, closets, shelves, curtains, furniture and picture frames that may provide harborage to bed bugs.
Carpet Beetles, Fleas and Ticks	A total integrated pest management program is recommended. It is suggested that infested areas be thoroughly vacuumed prior to treatment. These areas include all carpet, upholstered furniture, baseboards, and other indoor areas frequented by pets. The vacuum cleaner bag should be discarded in an outdoor trash container upon completion. Pet bedding should be cleaned or replaced. Apply this product as a uniform, coarse low-pressure (do not exceed 50 psi at nozzle tip) spot or crack and crevice treatment to areas where these pests normally inhabit. Care should be taken to limit spot treatments to pet bedding and its surrounding area, infested floor coverings and pest habitats. DO NOT treat entire area of floor, carpet or floor coverings. When these pests are found in upholstered furniture, apply only to the infested tufts, seams, folds and edges, but do not make broadcast applications to flat surfaces where prolonged human contact will occur. This product can also be applied out-of-doors for flea and tick control (see directions in Outdoor/Perimeter Pests).

(continued)

APPLICATION FOR INDOOR PESTS (cont.)

Pet Kennels	For residual control of crawling and flying insects in and around these structures, apply as a general surface and/or crack and crevice spray. Optimal control results if facilities to be treated are clean and if the exterior perimeter is concurrently treated with this product. Apply only to areas of facility where animals are not present. Allow spray to dry before allowing re-entry of animals into treated areas. Do not apply to animal feed or watering equipment. Do NOT treat pets with this product.
Non-Food/Non-Feed Areas of Food/Feed Handling Establishments	Examples of non-food/non-feed areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, mop closets and storage (after packaging, canning or bottling). In such non-food/non-feed areas, this product may only be applied as spot treatments, crack & crevice sprays, or void injections (sprays, mists, or foams) where labeled insects inhabit or may enter the facility.

OUTDOOR/PERIMETER PESTS

Use this product to control outdoor pests by application as a perimeter treatment, residual spray or broadcast application to exterior surfaces of buildings, lawns, grounds, and ornamental plantings.

Ants	Crickets	Gnats	Multi-colored Asian	Stable flies
Blue or green bottle flies	Earwigs	Ground beetles	lady beetle	Ticks
Boxelder bugs	Elm leaf beetles	Hornets	Pill bugs	Wasps
Brown marmorated stink bug	Fire ants	House flies	Scorpions	Yellow jackets
Carpenter ants	Firebrats	Midges	Silverfish	
Centipedes	Fleas	Millipedes	Sow bugs	
Cockroaches	Flesh flies	Mosquitoes	Spiders	
Cluster flies	Flies	Moths	Springtails	

Where to Apply	<p>This product may be applied as a residual spray or as a perimeter treatment around residential and non-residential settings.</p> <p>Residual Spray: Apply to surfaces on building exteriors, porches, patios and other structures, around door and windows, eaves and attic vents, utility entry points, soffit areas and other exterior openings (including foundation cracks or drilled holes) where pests enter the structure or where they have been seen or found, or can find shelter.</p> <p>Perimeter Treatments: Treat the outside of the structure, including walls (to a height of 2 to 3 feet), around door and window frames, and soffits where pests are active or may enter or hide. Treat the soil, turf, or other ground covering adjacent to the structure (in a band up to 10 feet wide) where pests are seen, have been found, or can find shelter. In ant management programs, apply to flower, shrub or ornamental plant beds where ants may be nesting, find food or forage.</p>
-----------------------	--

Application Restrictions	<p>Do not water the treated area to the point of run-off</p> <p>Do not make applications during rain.</p> <p>Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. During application, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters.</p> <p>All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:</p> <ol style="list-style-type: none"> 1.Applications to soil or vegetation, as listed on this label, around structures; 2.Applications to lawns, turf, and other vegetation, as listed on this label; 3.Applications to the side of a building, up to a maximum height of 3 feet above grade; 4.Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure; 5.Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width; 6.Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests.
---------------------------------	--

(continued)

OUTDOOR/PERIMETER PESTS (cont.)																																					
Application Restrictions (cont.)	Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.																																				
Use Rate	0.25 fluid ounce (7.5 milliliter) per 1,000 square feet of surface 0.75 fluid ounce (22.7 milliliter) per 1,000 square feet of surface 1.50 fluid ounce (45.4 milliliter) per 1,000 square feet of surface																																				
How to Apply (see Application for Outdoor/Perimeter Pests)	Apply as a coarse low-pressure (do not exceed 50 psi at nozzle tip) spray at the rate of 0.25 to 1.5 fluid ounces of this product per 1,000 square feet of surfaces. Apply in a sufficient volume of water to provide adequate coverage but do not allow run-off to occur. High volume applications using power sprayers: You must adjust the rate of product dilution to ensure the correct amount of the product (see Use Rate section above) is applied per 1,000 square feet of treated surface. For example, mixing 12.5 fluid ounces of this product in a 50 gallon tank, while using an application volume of 3.0 gallons per 1,000 square feet, will apply 0.75 fluid ounces of this product per 1,000 square feet. The table below gives examples of end use dilutions for typical power spraying application volumes.																																				
	<table border="1"> <thead> <tr> <th>DILUTION RATE CHART Amount of Product fluid ounces (milliliter)</th> <th>Application Volume gallons water</th> <th>Concentration (% AI) in spray solution</th> </tr> </thead> <tbody> <tr> <td rowspan="5">0.25 (7.5)</td> <td>1</td> <td>0.01%</td> </tr> <tr> <td>2</td> <td>0.005%</td> </tr> <tr> <td>3</td> <td>0.0033%</td> </tr> <tr> <td>4</td> <td>0.0025%</td> </tr> <tr> <td>5</td> <td>0.002%</td> </tr> <tr> <td rowspan="5">0.75 (22.7)</td> <td>1</td> <td>0.03%</td> </tr> <tr> <td>2</td> <td>0.015%</td> </tr> <tr> <td>3</td> <td>0.01%</td> </tr> <tr> <td>4</td> <td>0.0075%</td> </tr> <tr> <td>5</td> <td>0.006%</td> </tr> <tr> <td rowspan="5">1.5 (45.4)</td> <td>1</td> <td>0.06%</td> </tr> <tr> <td>2</td> <td>0.03%</td> </tr> <tr> <td>3</td> <td>0.02%</td> </tr> <tr> <td>4</td> <td>0.015%</td> </tr> <tr> <td>5</td> <td>0.012%</td> </tr> </tbody> </table>	DILUTION RATE CHART Amount of Product fluid ounces (milliliter)	Application Volume gallons water	Concentration (% AI) in spray solution	0.25 (7.5)	1	0.01%	2	0.005%	3	0.0033%	4	0.0025%	5	0.002%	0.75 (22.7)	1	0.03%	2	0.015%	3	0.01%	4	0.0075%	5	0.006%	1.5 (45.4)	1	0.06%	2	0.03%	3	0.02%	4	0.015%	5	0.012%
DILUTION RATE CHART Amount of Product fluid ounces (milliliter)	Application Volume gallons water	Concentration (% AI) in spray solution																																			
0.25 (7.5)	1	0.01%																																			
	2	0.005%																																			
	3	0.0033%																																			
	4	0.0025%																																			
	5	0.002%																																			
0.75 (22.7)	1	0.03%																																			
	2	0.015%																																			
	3	0.01%																																			
	4	0.0075%																																			
	5	0.006%																																			
1.5 (45.4)	1	0.06%																																			
	2	0.03%																																			
	3	0.02%																																			
	4	0.015%																																			
	5	0.012%																																			
When to Apply	Begin applications when pests are noticed. Treatments may be applied at 21-day intervals.																																				

APPLICATION FOR OUTDOOR/PERIMETER PESTS	
Ants, roaches and other listed crawling pests	Apply as a residual spray and/or perimeter treatment around the infested structure as described above. Locate and treat ant nests if possible. Follow trails of foraging worker ants and inspect for likely nest sites. If ants are nesting in soil, drench or inject the nest and surrounding soil. Foliar applications to landscape ornamentals will control aphids, scale insects, and other plant-sucking insects and limit the production of honeydew (an important food source for ant populations). Apply a light mist of the dilute spray, and do not allow excess run-off. Treat thoroughly for good coverage, including the underside of leaves. It is recommended to remove or prune away any shrubbery, bushes, or tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure, allowing ants to avoid contact with the treatment.

(continued)

APPLICATION FOR OUTDOOR/PERIMETER PESTS (cont.)	
Occasional invaders including multi-colored Asian lady beetle, elm leaf beetle, boxelder bug, and brown marmorated stink bug.	Apply directly to insects that have congregated around doors, windows and similar areas where they may enter the structure. Apply a perimeter treatment as described above. For best results, treat trees and shrubs infested with boxelder bugs, elm leaf beetles and other occasional invading species early in the season. [Tree spraying may require ornamental license - check with your local regulator.]
Fleas and Ticks (including ticks that may transmit Rocky Mountain Spotted Fever)	Apply as a coarse wet spray to areas where fleas and ticks are most likely to be found, such as dog houses, kennels, runways, along paths or trails, under plants, shrubs, bushes, trees, or other shaded, moist areas where pests may be found. Treat the entire area where these pests could be present. Fleas and ticks may be re-introduced from surrounding areas by host animals.
Mosquitoes	Treat with spray or mist around landscape plants, turf and ground cover, under decks, around building foundations and other places where mosquitoes may rest.
Fire Ants	Apply as a mound drench. Dilute 1.5 oz per one gallon of water. Gently sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each mound and surrounding area to a 2-foot diameter. For best results, apply in cool weather, 65 to 80°F or in early morning or late evening hours. Treat new mounds as they appear.
Scorpions	Treat areas where scorpions may hide. Treat known or suspected harborages on and around exterior walls. Apply spot treatments into cracks, crevices, weep holes or other access points into hollow block walls or masonry veneer. Spray around and beneath stones and along rocky areas. Scorpions will often harbor beneath the bark on trees, so inspect these areas and treat as required. When possible, remove piles of debris and building materials near the exterior wall that can harbor the pests. Apply a perimeter treatment to the exterior walls and adjacent soil. You may treat around piles of firewood, but do not treat firewood with this product.
Hornets, wasps, and yellow jackets	Make a pin stream application directly to hornet or yellow jacket nests. To reduce sting threat, make applications in the evening when the insects are inside the nest. For paper wasps, use a pin stream or fan spray and apply over surface of exposed nest. Remove and destroy treated nests to prevent emergence of newly emerged insects. If removal is not possible, retreat nests as needed.
Centipedes, millipedes, pill bugs, sow bugs, spring-tails.	Apply perimeter treatment to reduce the number of insects entering the structure. Thoroughly treat mulched areas. Correcting moisture problems around the structure will reduce pest pressure.
House flies and Cluster flies	Apply low pressure (do not exceed 50 psi at nozzle tip) mist or spray to outside of surfaces of buildings, porches, patios, garages, fences, and other areas where house flies rest. Cluster flies: Treat in late summer or fall, just before cluster flies begin looking for winter shelter. Spray siding, eaves, around windows and doors, and window screens. To help reduce infestations, treat cracks and crevices, attics and other indoor winter hiding places.

WOOD-INFESTING PESTS			
Drywood termites Beetles - Lyctid or powder post - Anobiid or deathwatch	Beetles (con't) - False powderpost - old house borers - wharf borers	Beetles (con't) - Ambrosia beetles - bark beetles	Carpenter ants Carpenter bees
Where to Apply	For treatment of wood infested with, or subject to infestation by, wood-infesting pests. Apply where pests have been seen or found, or can find shelter. Not for structural protection.		
Use Rate	0.06% - - 1.50 fluid ounce (45.4 milliliter) per gallon		
How to Apply	Apply spray, mist, or foam as described below in the application section. Treatment dilutions may also be applied to wood surfaces by paint brush or roller. Do not contact treated surfaces until dry.		
When to Apply	When pests are seen or found. Treatments may be applied at 21-day intervals, or as necessary to maintain adequate control.		
Foam Applications	This product can be converted to foam and used to treat structural voids to control wood-infesting pests in walls, under slabs, within masonry voids, or in other void areas. Mix end-use dilution with manufacturer's specified volume of foaming agent.		

APPLICATION FOR WOOD-INFESTING PESTS	
Drywood termites & wood-infesting beetles (Not for Structural Protection)	<p><u>Galleries and structural voids:</u> Treat by applying sprays, mists, or foams. Locate galleries by using visual signs (frass or pellets, blistered wood, emergence or clean out holes), the presence of live insects, mechanical sounding techniques, or listening devices (e.g., stethoscopes, acoustic emission detectors). Penetrate the gallery system by drilling holes to receive the injector tip or treatment tool. Distribute drill holes to adequately cover the gallery system. Apply as low pressure (do not exceed 50 psi at nozzle tip) spray, or by misting or, where appropriate, by foaming. Do not treat to the point where runoff is detected from adjacent holes.</p> <ul style="list-style-type: none"> • Avoid drilling where electrical wiring, plumbing lines, etc. are located. • Do not apply where electrical shock hazards exist. • Drill holes in commonly occupied areas must be sealed after treatment. <p><u>Wood surfaces:</u> Treat by spray or mist or, where appropriate, foam applications. For inaccessible surfaces, drill and treat the interior of structural voids. Surfaces treated may include exposed wooden surfaces in crawlspaces, basements, or attics. Wooden exterior surfaces such as decks, fencing, or siding, structural voids, channels in damaged wood, in spaces between wooden members of a structure, and junctions between wood and foundations. Apply by brushing or as a coarse, low pressure (do not exceed 50 psi at nozzle tip) spray to the wood surface; apply sufficient volume to cover the surface to the point of wetness, but avoid applying to the point of runoff.</p> <p>When spraying wood surfaces overhead in living areas, cover surfaces below the treated area with plastic sheeting or similar material. Do not contact treated surfaces until spray deposits have dried.</p>
Carpenter ants	<p><u>Homes and other structures:</u> Apply around doors and windows and other places where carpenter ants may enter. Spray or foam into cracks & crevices, or spray, mist or foam through small drilled holes into voids where ants or their nests are present. Use enough spray or foam to cover the area, but do not exceed 1 gallon of dilute suspension per 1,000 square feet of treated surface.</p> <p>It is recommended to remove or prune away any shrubbery, bushes, or tree branches touching the structure. Vegetation touching the structure may offer a route of entry for ants into the structure, allowing ants to avoid contact with the treatment.</p>

(continued)

APPLICATION FOR WOOD-INFESTING PESTS (cont.)

Carpenter ants (cont.)	<p><u>Exterior ant nests:</u> Inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject spray, mist, or foam using a treatment tool with a backsplash guard.</p> <p><u>Tunneling in soil:</u> Apply as a soil drench or inject the dilution or foam in the soil at intervals of 8 to 12 inches. Use 1 gallon of dilution per 8 square feet. Treat along the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surface.</p> <p><u>Protecting firewood from carpenter ants:</u> Treat soil beneath firewood before stacking at 1 gallon of dilution per 8 square feet. Do not treat firewood with this product.</p>
Carpenter bees	<p>Apply as a spray or mist, or sufficient volume of foam, directly into gallery entrance holes. Leave entrance open to be sure that returning adult bees are killed. When there is no longer any insect activity, the entrance hole may be sealed with a suitable sealant.</p> <p>Exterior wood surfaces may be treated by general surface application to prevent nest cavity excavation by adult carpenter bees.</p>

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE	<p>Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled on floor or paved surfaces, absorb on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.</p>
PESTICIDE DISPOSAL	<p>Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.</p>
CONTAINER HANDLING	<p>Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.</p>

APPENDIX

Use this product as a general surface (outdoors only), spot, mist, or crack and crevice treatment. Permitted areas of use include the following buildings, structures, and modes of transport:

- | | | |
|--|--|---|
| • Aircraft* (cargo holds only) | • grain mills* | • nursing homes* |
| • apartment buildings | • granaries* | • offices |
| • bakeries* | • greenhouses (structures only) | • pickle factories* |
| • bottling facilities* | • hospitals* | • poultry houses |
| • breweries* | • hotels | • processing and packing plants* |
| • buses | • houses | • restaurants* |
| • cafeterias* | • industrial buildings | • schools* |
| • candy plants* | • kitchens* | • spice plants* |
| • cereal processing and manufacturing plants* | • laboratories | • stores |
| • correctional facilities | • livestock housing | • warehouses |
| • dairies and dairy product processing plants* | • pet kennels | • wineries and similar structures* |
| • food manufacturing plants* | • manufacturing establishments | • transportation vessels such as buses, trucks, trailers, rail cars, and marine vessels |
| • food processing plants* | • mausoleums | |
| • food service establishments* | • Meat, poultry & egg processing & packaging plants* | |
| • frozen food plants* | • meat and produce canneries* | |
| | • mobile & motor homes | |

For indoor applications at these sites (*), observe the following restrictions:

- Do not apply in food/feed areas of food and feed handling establishments.
- Do not allow people or pets to contact treated areas until spray has dried.
- Do not apply in hospital and/or nursing home rooms while they are occupied.
- Do not apply in classrooms while they are occupied.
- Do not apply in aircraft cabins.
- Do not apply to furniture or upholstery where prolonged contact with humans will occur.
- Do not apply as a space spray.
- Do not allow excessive dripping or run-off to occur when treating vertical or overhead surfaces.
- Do not apply in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Bayer CropScience LP's control it is impossible for Bayer CropScience LP to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Bayer (reg'd), the Bayer Cross (reg'd), Suspend[®], PolyZone[™] and Backed by Bayer[™] are trademarks of Bayer.

Bayer

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709



Suspend[®]

POLYZONE[™]

- Maintain control with fewer applications
- Remains efficacious for up to 90 days on aggressive substrates, like high pH concrete or cement
- Better, more uniform distribution of AI particles than possible with conventional SC formulations
- Exclusive PolyZone technology creates a microscopic polymer film that protects AI from weather, precipitation, irrigation, and mechanical abrasion
- Exclusive PolyZone technology binds AI to surface, and slowly releases over time to achieve extended control

ACTIVE INGREDIENT:

*Deltamethrin 4.75%

OTHER INGREDIENTS: 95.25%

TOTAL: 100.00%

*Contains 0.42 lb deltamethrin per gallon.

EPA Reg No. 432-1514

STOP - READ THE LABEL BEFORE USE.
KEEP OUT OF REACH OF CHILDREN.
CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day

1-800-334-7577

For PRODUCT USE Information Call 1-800-331-2867

See attached leaflet for complete First Aid Instructions, Precautionary Statements, Directions for Use and Storage and Disposal Instructions.

BACKED
by **BAYER[™]**

Net Contents
1 Gallon

84105120

84129828B 140204AV2a

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

1/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name SUSPEND® POLYZONE®

Product code (UVP) 84493910

SDS Number 102000030997

EPA Registration No. 432-1514

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Skin irritation: Category 2

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

Causes skin irritation.

Precautionary statements

Wash thoroughly after handling.

Wear protective gloves.

IF ON SKIN: Wash with plenty of water/ soap.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

2/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Hazards Not Otherwise Classified (HNOC)

No other hazards not otherwise classified.
No physical hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Deltamethrin	52918-63-5	4.75

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

3/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO₂), Dry chemical, Foam, Water

Unsuitable None known.

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point No data available

Auto-ignition temperature No data available

Lower explosion limit No data available

Upper explosion limit No data available

Explosivity Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Dike area to prevent runoff. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated surface thoroughly. Decontaminate tools and equipment following cleanup.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

4/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection Chemical resistant nitrile rubber gloves

Eye protection Tightly fitting safety goggles

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

5/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to light beige
Physical State	suspension
Odour Threshold	No data available
pH	<= 7.0 at 100 % (23 °C)
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Density	ca. 1.05 g/cm ³ at 20 °C
Evaporation rate	No data available
Boiling Point	No data available
Melting / Freezing Point	No data available
Water solubility	dispersible
Minimum Ignition Energy	Not applicable
Decomposition temperature	No data available
Partition coefficient: n-octanol/water	Not applicable
Viscosity	700 - 1,700 cps at 25 °C
Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
10200030997

6/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

Conditions to avoid	freezing
Incompatible materials	No data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Eye contact, Skin contact, Inhalation

Immediate Effects

Eye Moderate eye irritation.

Skin May cause skin irritation.

Information on toxicological effects

Acute oral toxicity LD50 (female Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) > 2.08 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.
No deaths

Acute dermal toxicity LD50 (male/female combined Rat) > 5,000 mg/kg

Skin irritation Moderate skin irritation. (Rabbit)

Eye irritation Moderate eye irritation. (Rabbit)

Sensitisation Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Deltamethrin

52918-63-5

Overall evaluation: 3

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

7/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

OSHA

None.

Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.00091 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.00056 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic plants	EC50 (Algae) > 9.1 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Biodegradability	Deltamethrin: Not rapidly biodegradable
Koc	Deltamethrin: Koc: 10240000
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply when weather conditions favor runoff or drift. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
10200030997

8/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

Product	Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations. Follow advice on product label and/or leaflet.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
IATA	
UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No.	432-1514
-----------------------------	----------

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

9/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements:

Moderate eye irritation.
Avoid contact with skin and clothing.
Contact with product may result in transient tingling and reddening of the skin.
Remove and wash contaminated clothing before re-use.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR Code of Federal Regulations, Title 49

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 1.0 / USA
102000030997

10/10
Revision Date: 06/26/2017
Print Date: 06/26/2017

ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: New Safety Data Sheet due to change in numbering scheme.

Revision Date: 06/26/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



Suspend[®] SC

Insecticide

- Only for Use and Storage by Pest Control Operators and/or Commercial Applicators
- For Residential, Industrial and Institutional Control of Major Nuisance Pests Listed on The Label
- Controls Numerous Pests in and around Households and Other Structures
- Will not Damage Paints, Plastics, Fabrics or Other Surfaces Where Water Alone Causes No Damage
- For Insect Control on Commercial and Residential Turf and Landscape Ornamental Plants

ACTIVE INGREDIENTS:

*Deltamethrin 4.75%

OTHER INGREDIENTS: 95.25%

100.00%

*Contains 0.42 lb deltamethrin per gallon.

EPA Reg No. 432-763

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

Net Contents
1 Gallon

4205919

4548174D

100504AV2

BACKED
by **BAYER**[™]

FIRST AID	
If Inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-334-7577 for emergency medical treatment.	

FOR PRODUCT INFORMATION, CALL TOLL-FREE: 1-800-331-2867.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if inhaled. Avoid breathing vapor or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Use with care when applying in areas adjacent to any body of water. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.

PHYSICAL & CHEMICAL HAZARDS

Do not use water-based sprays of Suspend SC® Insecticide in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

GENERAL INFORMATION:

Suspend SC Insecticide is a suspended concentrate insecticide containing 0.42 lb active ingredient per gallon. Suspend SC Insecticide is designed for use both indoors and outdoors and will provide effective knockdown and long residual control of the pests listed on this label.

APPLICATION RESTRICTIONS

Do not water the treated area to the point of run-off.

Do not make applications during rain.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- (1) Treatment to soil or vegetation around structures;
- (2) Applications to lawns, turf, and other vegetation;
- (3) Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot crack-and-crevice applications, only.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Mixing Instructions: Suspend SC Insecticide is intended to be mixed with water and applied with hand pressurized or power operated sprayers, such as Actiso® or similar equipment, as a coarse spray or with conventional hydraulic boom-type sprayer or other suitable equipment for outdoor broadcast applications. Shake container well before using. When diluting, it is recommended to add approximate-

ly half the water to the spray tank, then add the proper amount of Suspend SC Insecticide in accordance with the rates in the appropriate Application Rate table. Agitate, then add the remaining water slowly to avoid excess foam. Thoroughly agitate the sprayer before using to insure proper suspension. If spraying is interrupted when using a back-pack or hand-held spray equipment, reinvert sprayer before use. If spray screens are used, they should be 50 mesh or larger. Dilute Suspend SC Insecticide only with water. Prepare spray solution when ready to make applications.

Tank Mixing: Suspend SC Insecticide may be tank-mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with other products is recommended to ensure compatibility. Observe all restrictions and precautions, which appear on the labels of these products.

Application Methods: For indoor uses this product may be applied as crack and crevice, spot, general surface treatments. For residential building and structures apply only as a crack and crevice or spot treatment. Treat where pests are found or normally occur. For general pest control outdoors see this section for additional methods of application.

Crack and Crevice Applications: Use a low pressure system with a pinpoint or variable pattern nozzle to apply the spray mixture to areas such as floors, cracks and crevices in and around baseboards, walls, expansion joints, areas around water and sewer pipes, and voids formed by equipment or appliances.

Spot Applications: Use a low pressure system with a fan-type nozzle to uniformly apply spot treatments in and around cupboards, and between, beneath and behind equipment or appliances. For control of carpet beetles, fleas and ticks indoors, apply as a coarse, low pressure crack and crevice spot treatment to problem areas and infested habitats. Do not treat entire floor, carpet or floor coverings. Do not apply as a space spray. Application to furniture should be restricted to areas where prolonged contact by humans will not occur. Care should be taken to limit spot treatment to pet beds and infested floor coverings.

Application Rates

Pests	Concentration of Active Ingredient ¹	Dilution Rate ²
Ants, carpet beetles, firebrats, fleas, gnats, midges, centipedes, millipedes, pantry pests, silverfish, ticks(indoor)	0.01% - 0.03%w/w	0.25-0.75 fl oz/gal 12.5-37.5 fl oz/50 gals 25-75 fl oz/100 gals
Bees, bed bugs, boxelder bugs, fleas (outdoor), cecid flies, cockroaches, elm leaf beetles, ground beetles, moths, midges, crickets, flies (including such flies as stable, house, cluster and horseflies), hornets, killer bees, lice, mosquitoes, multicolored asian lady beetle, pillbugs, scorpions, saw-bugs, spiders, ticks (outdoor), yellowjackets, wasps	0.03% - 0.06%w/w	0.75-1.5 fl oz/gal 37.5-75 fl oz/50 gals 75-150 fl oz/100 gals
Termites (formosan & Eastern subterranean - localized control only)	0.06% w/w	1.5 fl oz/ gal 75 fl oz/50 gals 150 fl oz/100 gals
Carpenter ants	0.03% w/w	0.75 fl oz/gal 37.5 fl oz/50 gals 75 fl oz/100 gals

1 The recommended rate for maintenance treatments is 0.01% and for cleanout treatments is 0.03%. For control of severe infestations and longer residual control use the 0.06% rate. In addition, more frequent applications may be needed on concrete surfaces.

- 2 0.25 fl. oz = 7.5 milliliters
0.75 fl. oz = 22.7 milliliters
1.5 fl. oz = 45.4 milliliters

GENERAL PEST CONTROL INDOORS

Treatment Sites: When used in accordance with label directions, Suspend SC Insecticide may be applied in and around residential and non-residential buildings and structures including residential kitchens and all types of food/feed handling establishments. Suspend SC Insecticide is intended to be mixed with water and applied indoors as a crack and crevice, spot or general surface treatment with hand pressurized or power operated sprayers or other suitable equipment for applying insecticides to localized areas. For residential buildings and structures apply only as a crack and crevice or spot treatment. This product can be applied to walls, floors, ceilings, in and around cabinets, between, behind and beneath equipment and appliances, around floor drains, window and door frames and around plumbing, sinks and other possible pest harborage sites. Permitted areas of use include, but are not limited to, the food/feed and non-food/non-feed areas of:

Aircraft (cargo only)	Food service establishments	Nursing homes
Apartment buildings	Granaries & grain mills	Offices
Bakeries	Hospitals	Railcars
Bottling facilities	Hotels	Restaurants
Breweries	Houses	Schools
Buses	Industrial buildings	Ships & vessels
Cafeterias	Installations	Trailers
Candy plants	Kitchens	Trucks
Canneries	Laboratories	Warehouses
Dairy product processing plants	Mausoleums	Wineries
Food manufacturing plants	Meat, poultry & egg processing & packaging plants	
Food processing plants	Mobile & motor homes	

Treatments may be applied at 21-day intervals or as necessary to maintain adequate control. Remove pets and cover aquariums and terrariums before spraying. Do not apply to classrooms when in use. Do not use in aircraft cabins.

Treat specific areas that insect inhabit or where they are frequently found. Use 0.25 to 1.5 fluid ounces of Suspend SC Insecticide in sufficient amount of water and apply to adequately cover 1000 square feet. Do not allow dripping or run-off to occur. Under conditions of severe pest infestation, when quick knockdown and/or longer residual control is desired, use 1.5 ounces of 0.06% Suspend SC Insecticide per 1,000 sq. ft.

Premise Pest Control: Cockroaches, Ants, Crickets, Silverfish, Firebrats, Centipedes, Millipedes, Clothes Moths, Earwigs, Pillbugs, Sowbugs, Scorpions and Spiders: Apply as a coarse, low pressure spot or crack and crevice spray to areas that these pests normally inhabit. Pay particular attention to dark corners of rooms and closets; floor drains; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators, and cabinets; around plumbing and other utility installations; doors, windows and in attics and crawl spaces. Applications may be made to floor surfaces along baseboards and around air ducts. Let surfaces dry before allowing children or pets to contact surfaces.

Pantry Pest Control: To kill adult and accessible stages of insect pests such as *Lesser Grain Borers, Grain Weevils, Flour Beetles, Saw-toothed Grain Beetles, Cigarette Beetles, Merchant Grain Moths, Angoumois Grain Moths, Mediterranean Flour Moths, Indian Meal Moths, Grain Mites and Spider Mites:* Make applications to cupboards, shelving and storage areas. Remove all foodstuffs, all utensils, shelf paper and other objects before spraying. Allow all treated surfaces to dry and cover shelves with clean paper prior to replacing foodstuffs, utensils or other items. Any foodstuff accidentally contaminated with any spray solution should be discarded.

Crawling and Flying Insect Pests (such as flies, gnats, midges, mosquitoes, cockroaches, ants and silverfish): Apply directly to walls, ceilings, window screens and other resting areas as a residual surface treatment. May be used inside residential buildings, as well as in and around carports, garages, storage sheds, unoccupied horse stables and pet kennels.

Ants (including Pharaoh Ants): Apply to trails, around doors and windows and other areas where ants inhabit or enter premises.

Bedbugs and Lice: Remove linens and wash before reuse. Apply to mattresses, especially tufts, folds, and edges until moist. Apply to the interior of the frame. Allow to dry before remaking bed.

Carpet Beetles, Fleas and Ticks: A total integrated pest management program is recommended. It is suggested that infested areas be thoroughly vacuumed prior to treatment. These areas include all carpet, upholstered furniture, baseboards and other indoor areas frequented by pets. The vacuum cleaner bag should be discarded in an outdoor trash container upon completion. Pet bedding should be cleaned or replaced. Apply Suspend SC Insecticide as a uniform coarse low-pressure spot or crack and crevice treatment to areas where these pests normally inhabit. Care should be taken to limit spot treatments to pet bedding and its surrounding area, infested floor coverings and pest habitats. Do not treat entire area of floor, carpet or floor coverings. Use a dust such as Deltastat® in areas around electrical equipment. Do not apply as a space spray. Restrict applications to furniture where no prolonged contact by humans will occur. Do not allow people or pets to contact treated areas until spray has dried. This product can be used with an Insect Growth Regulator (IGR). Effective flea control includes controlling the source of flea infestations. This can require treatment of pets with a product registered by EPA for such use and treating outside areas frequented by pets. Suspend SC Insecticide can also be applied out-of-doors for flea control. Do NOT treat pets with this product.

Pet Kennels: For residual control of crawling and flying insects in and around these structures, apply as a general surface and/or crack and crevice spray. Optimal control results if facilities to be treated are clean and if the exterior perimeter is concurrently treated with Suspend SC Insecticide. Apply only to areas of facility where animals are not present. Allow spray to dry before allowing re-entry of animals into treated areas. Do not apply to animal feed or watering equipment.

Food/Feed Handling Establishments: For control of all labeled pests, applications are permitted in food/feed and non-food/non-feed areas of food/feed handling and processing establishments as a general surface, spot or crack and crevice treatment.

Food/Feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food/feed. Serving areas where food/feed is exposed and the facility is in operation are also considered food/feed areas.

Non-Food/Non-Feed Areas: Examples of non-food/non-feed areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, mop closets and storage (after packaging, canning or bottling). All areas that insects inhabit or through which insects may enter should be treated.

General Surface Applications: Do not use this application method in the food/feed handling areas of the facility when the facility is in operation or foods/feeds are exposed. Do not apply directly to food/feed products. Cover or remove all food/feed processing and/or handling equipment during application. After application in food/feed processing plants, cafeterias and similar facilities, wash all equipment, benches, shelving and other surfaces which food/feed will contact. Clean food/feed handling or processing equipment and thoroughly rinse with clean, fresh water. After application in bakeries, clean all food contact surfaces thoroughly with appropriate equipment.

Spot or Crack & Crevice Applications: Except in federally inspected meat and poultry plants, spot or crack and crevice applications may be made while the facility is in operation provided exposed food is covered or removed from area being treated prior to application. Do not apply directly to food or food-handling surfaces.

In the home, do not allow spray to contact food/feed surfaces. If it does, clean surfaces with soap and water.

GRAIN BINS AND WAREHOUSES: Dilute 0.25-1.5 fl oz of Suspend SC Insecticide with water to make 1 gallon of solution. Apply finished spray to equipment, wall and floor surfaces of grain bins and warehouses at the rate of 1 gallon per 1000 sq. ft. prior to storing or handling grain. Do not allow run-off to occur. Application should be made only after equipment bins and buildings have been thoroughly cleaned. Empty bins or warehouses should be fumigated with an EPA registered fumigant according to the manufacturer's label recommendations when inaccessible areas exist. To help prevent infestation of these structures, apply Suspend SC Insecticide as a perimeter treatment where pests are active and may find entrance. It is recommended to treat a band of soil or lawn up to 6-10 feet wide around and adjacent to structures and treat the foundation to a height of 2 to 3 feet. Mix 0.25-1.5 fl oz of Suspend SC Insecticide with water to make 1 gallon of solution. Apply as a coarse spray at a rate of 1 gallon per 1000 sq. ft. Thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

GENERAL PEST CONTROL OUTDOORS

Use Suspend SC Insecticide to control outdoor pests by application as either a perimeter treatment,

residual spray or broadcast application to lawns, grounds and ornamental plantings.

Treatment Sites: When used in accordance with label directions, Suspend SC Insecticide may be applied as a perimeter treatment or as a residual spray around residential and non-residential settings. Begin applications when pests are noticed.

Residual Spray: Apply Suspend SC Insecticide as a coarse low-pressure spray at the rate of 0.75 to 1.5 fl oz to surfaces of buildings, porches, screens, window frames, eaves, patios, refuse dumps, garages and lawns.

Perimeter Treatments: To help prevent infestation of buildings, apply Suspend SC Insecticide where pests are active and may find entrance. It is recommended to treat a band of soil or lawn up to 6 - 10 feet wide around and adjacent to buildings and treat the building foundation to a height of 2 to 3 feet. Apply as a coarse spray at the rate of 0.25 to 1.5 fl oz of Suspend SC Insecticide in sufficient amount of water. (See Mixing Directions for Perimeter Application below.) Use an adequate volume to thoroughly and uniformly wet the barrier area but do not allow run-off to occur.

Fleas and Ticks: Apply Suspend SC Insecticide as a coarse wet spray to areas where fleas and ticks are most likely to be found, such as but not limited to, dog houses, kennels, runways, cracks and crevices in sidewalks, paths or patios, under plants, shrubs, bushes, trees, or other shaded, moist areas where pests may rest.

Fire Ants: Apply Suspend SC Insecticide as a drench. Dilute 1.5 fl oz per one gallon of water. Gently sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each mound and surrounding area to a 2-foot diameter. For best results, apply in cool weather, 65 to 80°F or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.

Wood-Infesting Insects: For control of wood-infesting beetles on surfaces in homes and other structures, apply a 0.06% suspension of Suspend SC Insecticide. For treatment of small areas, apply by brushing or spraying the suspension evenly on wood surfaces. For large or overhead areas of homes, apartment buildings, etc., apply as a coarse spray to thoroughly cover the area. Cover all surfaces below the area being sprayed with plastic sheeting or other material which can be disposed of

by placing in trash if contamination from dripping occurs. Sprayed surfaces should be avoided until the treated area is completely dry.

For control of above-ground termites and wood-infesting beetles in localized areas, apply a 0.06% suspension or sufficient volume of foam of Suspend SC Insecticide to voids and galleries in damaged wood and in spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable. Applications may be made to inaccessible areas by drilling and then injecting the suspension or foam with a suitable directional injector into the damaged wood or wall voids. All treatment holes drilled in construction elements in commonly occupied areas of structures must be securely plugged.

Termite carton nests in building voids may be injected with 0.06% suspension or foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such nests are found.

Application to attics, crawl spaces, unfinished basements, or man-made voids may be made with a coarse fan spray of 0.06% suspension to control exposed worker and winged reproductive forms of termites. For control of swarming or reproductive stages of termites, apply a 0.06% suspension to the swarm or area on which they collect.

The purpose of such applications of Suspend SC Insecticide is to kill workers or winged reproductive forms which may be present at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment but are merely a supplement.

Do not apply solution until location of heat or air conditioning ducts, vents, water and sewer lines and electrical conduits are known and identified. When located, applications may be made around these structures. However, caution must be taken to avoid contamination of these structural elements and airways.

For control of above-ground termites inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject 0.06% suspension or foam using an appropriate treatment tool with a splashback guard.

MIXING DIRECTIONS FOR Suspend SC INSECTICIDE - OUTDOOR PERIMETER APPLICATION

I. Suspend SC INSECTICIDE DILUTION (0.25 fl oz/1000 sq. ft.) - (Based on one home being 1,000 sq. ft.)

Tank Size	15 Gallons		25 Gallons		50 Gallons		100 Gallons	
	Finished Spray: Gallons Per 1000 sq. ft.	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)
1	3.75	15	6.25	25	12.50	50	25.00	100
3	1.25	5	2.08	8	4.17	16	8.33	33
5	0.75	3	1.25	5	2.50	10	5.00	20
10	0.37	1.5	0.63	2.5	1.25	5	2.50	10

*Based on Suspend SC Insecticide applied at 0.25 ounces per 1,000 square feet treated per home or structure.

II. Suspend SC Insecticide dilution (1.00 fl oz/1000 sq. ft.)

Tank Size	15 Gallons		25 Gallons		50 Gallons		100 Gallons	
	Finished Spray: Gallons Per 1000 sq.ft.	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)	Homes Per Tank*	Suspend SC Insecticide Per Tank (fl oz)
1	15.0	15	25.0	25	50	50	100	100
3	5.0	5	8.4	8.3	16.70	16.7	33.3	33.3
5	3.0	3	5.0	5	10.0	10	20.0	20
10	1.5	1.5	2.5	2.5	5.0	5	10.0	10

*Based on Suspend SC Insecticide applied at 1.00 ounce per 1,000 square feet treated per home or structure.

Termite carton nests in trees may be injected with 0.06% suspension or foam using a pointed injection tool. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from trees when such nests are found.

For protection of firewood from carpenter ants and termites, treat soil beneath firewood prior to stacking with a 0.06% suspension at 1 gallon per 8 square feet to prevent carpenter ant or termite infestation. DO NOT treat firewood with this product.

For control of carpenter ants in houses and other structures, use a 0.06% suspension and apply as a general surface, spot, crack and crevice or wall void application. Apply around doors and windows and other places where carpenter ants may enter the premises. Spray or foam into cracks and crevices through small drilled holes into voids where these ants or their nests are present. Use a sufficient amount of coarse spray or foam to cover the area. Do not exceed 1 gallon of dilute suspension per 1000 square feet of treated surface.

For control of carpenter ants inside trees, utility poles, fencing and decking materials and similar structural members, drill to find the interior infested cavity and inject 0.06% suspension or foam using an appropriate treatment tool with a splashback guard.

For control of tunneling carpenter ants in soil, apply a 0.06% suspension as a drench or inject the suspension or foam at intervals of 8 to 12 inches. Establish a uniform vertical barrier at the edge of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.

For control of carpenter bees in structures, apply a 0.06% suspension or sufficient volume of foam directly into gallery entrance holes. Following treatment, the entrance holes may be left open 24 hours to be certain that returning adult bees are killed. When there is no activity, the hole may be sealed with a suitable sealant.

Foam Application Use Directions: Suspend SC Insecticide can be converted to a foam and the foam used to treat structural voids to control insect and arthropod pests in walls, under slabs or in other void areas. Mix end-use dilution of Suspend SC Insecticide with manufacturer's recommended volume of foaming agent. Use the recommended rate suspension converted to a foam to achieve the desired foam expansion ratios. Verify before treatment that the foaming agent is compatible with Suspend SC Insecticide.

Turfgrass Applications: Suspend SC Insecticide controls a broad spectrum of insects on turfgrasses and ornamental plants in outdoor areas such as athletic fields, recreational areas, residential landscapes, parks, and public and commercial sites such as around institutional commercial and industrial buildings.

Uniform coverage is essential. Begin applications when pests are evident. Apply Suspend SC Insecticide as a broadcast application using a conventional hydraulic boom-type sprayer or other suitable equipment for turfgrass pests according to the rates listed in the Application Rates for Turfgrass Sites table. Apply using a minimum of 2 gallons of water per 1000 sq. ft. Higher volumes (4 to 10 gallons of water per 1000 sq. ft.) may be needed for adequate coverage of dense turfgrass canopies and/or turfgrasses maintained under high mowing heights. Allow sufficient time for the application to dry before allowing pets or people to enter treatment area.

Target insects must be exposed to the insecticide to be controlled. For optimum control of surface-feeding insects, delay irrigation or mowing for 24 hours after application. For subsurface-feeding insects, irrigate with 0.25 to 0.5 inch of water immediately after application.

Tank Mixing: Suspend SC Insecticide has been found to be compatible with many commonly used pest control and fertilizer products. When tank-mixing Suspend SC Insecticide, observe all restrictions and precautions and limitations which appear on the label of each product. For any tank-mixture which has not been previously tested, mix the correct proportion of products and water in a quart jar to ensure proper physical compatibility of the mixture. Tank mixtures of Suspend SC Insecticide with silicone surfactants may improve the control of some insects.

NOTE: In New York State, product may not be applied to turf within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh. For control of turf insects in New York, a second application may be made after two weeks if target insect activity persists.

Application Rates For Turfgrass Sites:

Sites	Pests	Rates	Remarks
Athletic fields, recreational areas, lawns & grounds, residential areas, parks, public and commercial sites	Ants, armyworms, centipedes, chiggers, cockroaches, crickets, cutworms, fleas(adult), grasshoppers, ground beetles, Japanese beetles (adults), leafhoppers, mealybugs, pillbugs, scorpions, sod webworms, sowbugs, springtails, spiders, ticks	0.4 to 0.6 fl oz/1000 sq. ft or 17.5 to 26 fl oz/Acre or 0.06 to 0.08 lb ai/A	Apply when pests become evident. Apply as a broadcast spray in a minimum of 2 gallons of water per 1000 sq. ft. Delay irrigation or mowing for 24 hours after application for optimum control of surface-feeders such as cutworms and webworms. For subsurface - feeders, such as mole crickets, irrigate with 0.25 to 0.5 inch of water immediately after application. The addition of a silicone surfactant may enhance mole cricket control.
	Annual bluegrass weevil (adult), billbugs (adult), black turfgrass ataenius (adult), chinch bugs, mites*, mole crickets.	0.6 to 0.9 fl oz/1000 sq. ft. or 26 to 39 fl oz/Acre or 0.08 to 0.13lb ai/A	

*Suppression Only

Landscape Ornamental Treatments:

Suspend SC Insecticide provides control of a wide range of insects on landscape ornamentals. Mix Suspend SC Insecticide with the required amount of water according to the Application Rates for Ornamentals table below. Thoroughly apply the finished spray to upper and lower leaf surfaces to ensure adequate coverage, but prior to dripping. Be sure to penetrate dense foliage to wet leaves, trunk and branches.

Plant safety testing has been conducted on many species of ornamental plants under a wide range of environmental and cultural conditions and no injury has been observed. If local use information is not available, it is advisable to pre-spray a few plants.

Application Rates For Ornamentals:

Sites	Pests	Rates	Remarks
Landscape ornamentals including trees, shrubs, evergreens and foliage plants	Adelgids, ants, aphids, azalea lace bugs, bagworms, boxelder bugs, cankerworms, cardamom thrips, cockroaches, crickets, elm leaf beetles, elm spanworms, European pine sawflies, fall webworms, flea beetles, flies, fungus gnats, grasshoppers, greenstriped mapleworm, Gypsy moth (larvae), imported willow leaf beetles, Japanese beetles (adults)*, June beetles (adults), lace bugs, leaf-feeding caterpillars, leafhoppers, leaf rollers, loopers, leaf skeletonizers, mealybugs, midges, mimosa webworms, mites**, orangestriped oakworms, pillbugs, pine shoot beetles, pine tip moths, pinyon spindlegall midges, plant bugs, rehdumped caterpillar, red imported fire ants, sawfly larvae, sowbugs, spiders, springtails, spanworms, scale insects (crawlers), tent caterpillars, ticks, webworms, yellownecked caterpillar	4 to 8 oz/100 gallons of water	Apply when pests become evident. Thorough coverage is required for best results. Apply with sufficient water to ensure coverage of upper and lower leaf surfaces.

*Will provide anti-feedant properties on treated ornamentals against Japanese beetles.

**Suppression only.

NOTES:

1. DO NOT apply Suspend SC Insecticide through any type of irrigation system.
2. DO NOT apply this product to edible crops.
3. DO NOT apply this product in hospital patient rooms while occupied or in any rooms occupied by the elderly or infirm.
4. DO NOT apply in classrooms when in use.
5. DO NOT apply to institutions (including libraries, sport facilities, etc.) in the immediate area when occupants are present.

STORAGE & DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE: Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross-contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled, on floor or paved surfaces, absorb on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. If partly filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Bayer (reg'd), the Bayer Cross (reg'd), Suspend®, and Backed by Bayer™ are trademarks of Bayer.



Produced for:

Bayer Environmental Science

A Division of Bayer CropScience LP

2 T. W. Alexander Drive

Research Triangle Park, NC 27709

Product of India

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

1/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name SUSPEND® SC INSECTICIDE
Product code (UVP) 85373676
SDS Number 102000032681
EPA Registration No. 432-763

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Insecticide
Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States
Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Deltamethrin	52918-63-5	4.75

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

2/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO₂), Dry chemical, Foam, Water

Unsuitable None known.

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

3/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Smoking, eating and drinking should be prohibited in the application area. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

4/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

Requirements for storage areas and containers Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Protect from freezing.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

Eye protection Tightly fitting safety goggles

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures Eye wash facility and safety shower should be available. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance white
Physical State suspension
Odor characteristic
Odour Threshold No data available
pH ≤ 7.0 at 100 % (23 °C)
Vapor Pressure No data available
Vapor Density (Air = 1) No data available
Density 1.05 g/cm³ at 20 °C

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

5/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

Evaporation rate	No data available
Boiling Point	No data available
Melting / Freezing Point	No data available
Water solubility	immiscible
Minimum Ignition Energy	Not applicable
Decomposition temperature	No data available
Partition coefficient: n-octanol/water	No data available
Viscosity	1,300 - 1,800 cps at 25 °C
Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	freezing
Incompatible materials	Strong oxidizing agents, Strong reducing agents
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Inhalation, Skin contact, Eye contact, Ingestion
Immediate Effects	
Skin	Contact with product may result in transient tingling and reddening of the skin.

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

6/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

Inhalation Harmful if inhaled.

Information on toxicological effects

Acute oral toxicity LD50 (Rat) > 15,000 mg/kg

Acute inhalation toxicity LC50 (Rat) > 1.02 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.
No deaths

Acute dermal toxicity LD50 (Rabbit) > 10,000 mg/kg

Skin irritation slight irritation (Rabbit)

Eye irritation Minimally irritating. (Rabbit)

Sensitisation Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Deltamethrin 52918-63-5 Overall evaluation: 3

OSHA

None.

Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

7/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.15 µg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.0131 µg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic plants	EC50 (Algae) > 9.1 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Biodegradability	Deltamethrin: Not rapidly biodegradable
Koc	Deltamethrin: Koc: 10240000
Bioaccumulation	Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 189 - 3,930
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
Contaminated packaging	Triple rinse containers. Add washings to sprayer at time of filling.

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

8/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

Puncture container to avoid re-use.
Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning.
If burned, stay out of smoke.
Follow advice on product label and/or leaflet.

RCRA Information

Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR Not dangerous goods / not hazardous material

IMDG

UN number **3082**
Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-763

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

9/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if inhaled.
Avoid inhalation of vapour or mist.
Contact with product may result in transient tingling and reddening of the skin.
Remove and wash contaminated clothing before re-use.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

SAFETY DATA SHEET



SUSPEND® SC INSECTICIDE

Version 2.0 / USA
102000032681

10/10
Revision Date: 07/07/2017
Print Date: 07/08/2017

IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 0 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 13. Disposal considerations.
Section 14: Transport Information.

Revision Date: 07/07/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

RESTRICTED USE PESTICIDE

DUE TO EYE AND SKIN CORROSIVITY HAZARD

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification.

TRUMPET[®] EC

INSECTICIDE

FOR USE ONLY BY FEDERAL, STATE, TRIBAL, OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION. NOT FOR USE IN AND AROUND THE HOME BY HOMEOWNERS OR PROFESSIONAL APPLICATORS.

ACTIVE INGREDIENT:

Naled (1,2-dibromo-2,2-dichloroethyl dimethyl phosphate)..... 78.0%

INERT INGREDIENTS:..... 22.0%

TOTAL:100.0%

Contains 10.8 pounds naled per gallon.
Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 5481-481
EPA Est. No. _____

Net Contents:
As Marked on Container



4100 E. Washington Blvd., Los Angeles, CA 90023 U.S.A.

FIRST AID Organophosphate	
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently from the side of the eye with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth unless individual is contaminated with product. • Call a poison control center or doctor for further treatment advice.
EMERGENCY INFORMATION	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:</p> <p>For Medical Emergencies phone:.....1-888-681-4261 For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®1-800-424-9300 For Product Use Information phone: AMVAC®1-888-462-6822</p>	
NOTE TO PHYSICIAN	
<p>Naled is an organophosphate cholinesterase inhibitor. Contains petroleum distillates. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (Protopam) is also antidotal and may be used in conjunction with atropine, but should not be used alone. Probable mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard.</p>	

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. CORROSIVE. Causes irreversible eye and skin damage. Causes skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and Viton®.

Mixers, loaders, and other handlers must wear:

- Protective eye wear (goggles, face shield, or safety glasses)
- Long-sleeved shirt and long pants
- Socks plus shoes
- Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber, or Viton, selection category E) and apron when mixing or loading.

See engineering controls for additional requirements.

In addition, mixers and loaders must:

- Have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown, the PPE specified below for handlers engaged in those activities for which use of an engineering control is not possible.

Mixers, loaders, applicators (except aerial applicators in a cab/cockpit) and other handlers engaged in those handler activities for which use of an engineering control is not possible, such as cleaning up a spill or leak and cleaning or repairing contaminated equipment, must wear:

- Protective eye wear (goggles, face shield, or safety glasses)
- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant apron if exposed to the concentrate
- Chemical-resistant headgear for overhead exposure
- A respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23G), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. Please note that N designation for respirator filters does not apply when application is made with oils.

USER SAFETY REQUIREMENTS

- Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water.
- Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

- Mixers and loaders supporting aerial or mechanical ground applications must use a closed system designed by the manufacturer to enclose the pesticide to prevent it from contacting handlers or other people *AND* the system must be functioning properly and must be used and maintained in accordance with the manufacturer's written operating instructions.
- The system must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment.
- At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage to not more than 2 ml. per disconnect point.

In addition, mixers and loaders must:

- Wear the personal protective equipment required in the PPE section of this labeling for mixer/loaders.
- Wear protective eyewear if the system operates under pressure.
- Be provided and have immediately available for use in case of an emergency, such as a broken package or spill, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.

Aerial applicators in a cab/cockpit must:

- Be provided and have immediately available for use in case of an emergency repair of the application equipment, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.
- Take off any PPE that was contaminated before entering or reentering the cab/cockpit.
- Store all such PPE in a closed, chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab/cockpit.
- NOTE: Aerial applicators are not required to use an enclosed cab/cockpit and are not required to wear PPE while in the cab/cockpit.

Motorized ground-equipment applicators must:

- Be provided and have immediately available for use in case of an emergency repair of the application equipment, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.
- Take off any PPE that was contaminated before entering or reentering the cab/cockpit.

- Store all such PPE in a closed, chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab/cockpit.
- Use an enclosed cab with a nonporous barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. The cab must either have a properly functioning ventilation system that is used and maintained according to the manufacturer's written operating instructions and is declared in writing by the manufacturer or by a governmental agency to provide at least as much protection as the type of respirator listed in the PPE section above **or** the occupant must wear a respirator as specified in the PPE section above.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

It is recommended that any worker displaying clinical signs of cholinesterase-inhibition, such as headaches, nausea and dizziness, have an immediate physical examination including appropriate cholinesterase measurements. If initial examination was not conducted by a board-certified person who is certified in occupational health, then a separate examination should be conducted within 24 hours by a person so certified.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, consult with the primary State agency responsible for regulating the pesticides to determine if permits are required or regulatory mandates exist. Do not apply over bodies of water (e.g., lakes, swamps, rivers, permanent streams, natural ponds, commercial fish ponds, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment washwaters or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. To minimize hazard to bees, it is recommended that the product is not applied more than two hours after sunrise or two hours before sunset, limiting application to times when bees are least active. Do not apply this product or allow it to drift to blooming crops or weeds while bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health as determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or the tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

Before making the first application of the season, consult with the primary State agency responsible for regulating the use of pesticides to determine if permits are required or regulatory mandates exist.

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product shall be the exclusive risk of user, applicator and/or application advisor. Read and follow the entire label of each product to be used in the tank mix with this product.

TRUMPET EC is a special formulation for use undiluted to be applied for the control of mosquitoes, flies and certain other nuisance insects.

APPLICATION RESTRICTIONS

For application by, or under the supervision of, personnel certified/trained in public health pest control or mosquito control. For each application, a record must be kept of:

- Date, time and areas where application occurred
- Type and size of spray nozzle used
- Dilution and application rate
- Speed of application vehicle (whether air or ground)
- A description of insecticide delivery system used for the specific application
- Climate factors (e.g., ambient temperature, wind speed/direction) as determined using reliable means
- Employees involved in mixing, loading and applying TRUMPET EC.

These records must be kept by the responsible public agency or their designee for a minimum of two years using storage methods that will allow the records to be easily retrieved.

Any system used to apply this product must be capable of providing the correct droplet size as specified below. Likewise, all applications must use the correct droplet size as specified below. Careful attention to directions concerning nozzles, nozzle positioning, air speed and droplet size is essential to avoid unwanted effects. Under-atomization produces large droplets that will quickly fall to the ground, while over-atomization produces finer droplets which either evaporate, dissipate, or drift in an unanticipated manner. Correct droplet size is critical to ensure effective mosquito control.

The entire spray system must be inspected before each operation to correct any leaks or obstructions, to detect whether the nozzle, hoses, or other parts are worn and need replacement, to ensure that the flow is properly calibrated and to determine that adequate pressure is being maintained. Adequate cleaning and maintenance of the unit must be performed to ensure that the entire system is operating properly. Spray system components essential for correct droplet size must be cleaned or replaced as needed to ensure correct droplet size.

Spray during periods when ground level wind speed is equal to or greater than 1 mph. Apply when thermal activity is low. Do not apply when ambient temperature is less than 50°F.

Do not apply when it is raining in the treatment area.

Treatment of a site must be based on pest surveillance results. Do not treat any site more than 1 time per day. Do not treat any site with more than 2 fl. oz. of undiluted TRUMPET EC per acre within a 7 day period and the amount of undiluted TRUMPET EC applied to any site must not exceed 127 fl. oz. (10.73 pounds of naled a.i./acre) per year. More frequent treatments may be made to prevent or control a threat to public and/or animal health as determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Ground-Based Application:

Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 40 microns ($D_v 0.5 < 40 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 75 microns ($D_v 0.9 < 75 \mu\text{m}$). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ($D_v 0.5 < 60 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 115 microns ($D_v 0.9 < 115 \mu\text{m}$). The effects

of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

OPERATIONAL USE INSTRUCTIONS

- All equipment used in the mixing or application (by ground or air) of TRUMPET EC must be constructed of corrosion-resistant materials. Stainless steel, bronze, brass, fiberglass, polypropylene and rigid PVC have all proven to be adequately resistant to the effects of TRUMPET EC when properly maintained and inspected.
- Use of Teflon[®] or Viton seals is recommended. Even when these materials are used to construct a spray system, a careful maintenance program involving flushing, cleansing and constant inspection must be followed. Avoid use of steel or galvanized steel.
- Strain TRUMPET EC as it is being loaded. Use a 100 mesh stainless steel or nylon screen. If product crystallization occurs, warm at 70°F until crystals disappear.
- Flushing the system following application is required. Use water to thoroughly flush the entire spray system following application of TRUMPET EC.
- TRUMPET EC must be applied using the correct droplet size. Over-atomization produces finer droplets which either evaporate or dissipate too quickly and become unavailable for mosquito contact. The spread factor for TRUMPET EC on silicone or Teflon-coated slides is 0.54 and 0.7, respectively. If applied incorrectly, TRUMPET EC will spot certain automobile paint finishes. Careful attention to recommendations concerning nozzles, nozzle positioning, air speed and droplet size is essential to avoid paint spotting.

ADULT MOSQUITO CONTROL

Adult Mosquito Control in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, pastures, feed or forage areas. Use in agricultural areas must be in a manner as to ensure that residues do not exceed the established federal tolerance for the active ingredient in or on raw agricultural commodities resulting from use for wide area pest control. Treat shrubbery and vegetation where mosquitoes may be present. Shrubby and vegetation around stagnant pools, marshy areas, swamps, residential areas, municipalities, woodlands, pastures, farm buildings and feedlots may be treated.

Ultra Low Volume (ULV) Aerial Application: Apply 0.6 to 1.2 fl. oz. of undiluted product per acre (equivalent to 0.05 to 0.1 lb. a.i./acre). Use the 1.2 fl. oz. rate where heavy vegetation exists; i.e., woodlands, etc.

Ultra Low Volume (ULV) Ground Application: Apply TRUMPET EC undiluted at a rate of 0.75 fl. oz. per minute at 5 mph; 1.5 fl. oz. per minute at 10 mph; and 2.2 fl. oz. per minute at 15 mph, applying a 300 ft. swath. These flow rates are equivalent to 0.02 lb. active ingredient per acre. In conditions of high pest pressure and/or heavy foliage, a maximum of 0.1 lb. active ingredient per acre may be applied.

Vehicles used to apply TRUMPET EC must be kept closed during application (air-conditioned) and equipped with an automatic flow control device. Consult equipment manufacturers for specific recommendations.

HOUSEFLIES, GNATS, CERTAIN OTHER NUISANCE INSECTS AND SUPPRESSION OF BLACKFLIES

Small Flying Moths, Flies (including but not limited to Crane Flies, Adult Stable Flies, Dog Flies, Biting Flies, Filth Flies), Midges in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, and feed or forage areas.

Ultra Low Volume (ULV) Aerial Application: Apply 1.2 fl. oz. of undiluted TRUMPET EC per acre (equivalent to 0.1 lb. a.i./acre).

SUPPRESSION OF DEER FLIES AND OTHER TABINIDS

Deer Flies in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, and feed or forage areas.

Ultra Low Volume (ULV) Aerial Application: Apply 1.2 fl. oz. of undiluted TRUMPET EC per acre (equivalent to 0.1 lb. a.i./acre).

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE: Keep pesticides in original container. Do not put concentrate into, or dilute into food or drink containers. For help with any spill, leak or fire involving this material, call day or night 1-800-424-9300 or for help with any exposure involving this material, call day or night 1-888-681-4261.

PESTICIDE DISPOSAL: This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Returnable Container. Nonrefillable container. Do not reuse or refill this container. This container is a dedicated, single-product returnable container. Return empty container to seller at location designated by seller as a collection point. Do not break seals, add anything to container or open container after use. Do not rinse or contaminate empty container. Do not dispose of un-tampered empty container or use it for any other purposes. Any evidence of broken seals or other tampering or adding anything to the container renders it unfit for return. In such case, it is the obligation of the holder of the container to dispose of it properly or offer for recycling, if available.

It is required that this product be used in a CLOSED SYSTEM. This container may require a tank adapter. For questions regarding tank adapters, call AMVAC Customer Service at 1-888-462-6822 (1-888-GO-AMVAC).

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

© 2014 AMVAC Chemical Corporation. All Rights Reserved. AMVAC, Trumpet, and the Beaker logo are registered trademarks of AMVAC Chemical Corporation. Chemtrec is a trademark of the American Chemistry Council, Inc. Teflon and Viton are trademarks of E. I. Du Pont de Nemours.

AMVAC Chemical Corporation
4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A.
1-888-462-6822

SPECIMEN

1. Identification

Product identifier TRUMPET® EC INSECTICIDE

Other means of identification

SDS number 283

Recommended use Organophosphate insecticide.

Recommended restrictions This is a Restricted Use Pesticide and is for use by licensed applicators only. Keep out of the Reach of Children!

Product registration number 5481-481

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name AMVAC Chemical Corporation

Address 4100 E Washington Blvd
Los Angeles, CA 90023 USA

Telephone AMVAC Chemical Corp 323-264-3910
AMVAC Chemical Corp 323-268-1028 (FAX)

Website www.Amvac-Chemical.com

E-mail CustServ@Amvac-Chemical.com

Emergency phone number Medical 888-681-4261
CHEMTREC® (USA+Canada) 800-424-9300
Product Use 888-462-6822
CHEMTREC® (Outside USA) +1-703-527-3887

2. Hazard(s) identification

Physical hazards Flammable liquids Category 4

Health hazards Acute toxicity, oral Category 3
Acute toxicity, inhalation Category 2
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Sensitization, skin Category 1
Carcinogenicity Category 2

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the aquatic environment, long-term hazard Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Toxic if swallowed. Causes serious eye damage. Harmful if inhaled. Causes skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves. Wear eye/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see this label). Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	United States Environmental Protection Agency Labeling Requirements: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

DANGER: CORROSIVE. Causes irreversible eye damage. Causes skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not breathe mist/vapors/spray.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds, and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes. Before making the first application in a season, consult with the primary State agency responsible for regulating the pesticide to determine if permits are required or regulatory mandates exist. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (e.g., lakes, swamps, rivers, permanent streams, natural ponds, commercial fish ponds, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. See the label for more complete information.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Naled		300-76-5	78
Naphthalene		91-20-3	< 1
1,3-Diethyl benzene		141-93-5	< 0.2

Impurities

Chemical name	CAS number	%
DDVP (DICHLORVOS)	62-73-7	<= 0.4

Composition comments All concentrations are in percent by weight.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion	Call a physician or poison control center immediately. Have person sip a glass of water if able to swallow Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	This is a cholinesterase inhibiting organophosphorous pesticide. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed. May cause an allergic skin reaction. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	This product is an Organophosphate (OP) Insecticide. Do not handle the patient without the following protective equipment in place: chemical resistant gloves and apron (preferably nitrile). Remove contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Dispose of heavily contaminated clothing, including shoes, as a hazardous waste. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. In the USA and other countries, contact your local or national poison control center for more information. Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minutes intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferably as an infusion, in 250 cc of saline over a 15 to 20 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5% solution in water over not less than 2 minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams. Avoid morphine, aminophylline, phenothiazine, reserpine, furosemide and ethacrynic acid. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may without warning cause prolonged susceptibility very small doses of any cholinesterase inhibitor. Allow no further exposure until time for cholinesterase regeneration has been attained as determined by a blood test. Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) is indicated. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed indotracheal tube.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. This product will emit toxic fumes when heated sufficiently to decompose, including hydrogen chloride, hydrogen bromide and carbon monoxide. Vapors of the unburned product will also be hazardous. Do not breathe gas, fumes, or vapor.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire: Evacuate area. Keep upwind. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This is a noncombustible liquid that will not support fire. This product will emit toxic fumes when heated sufficiently to decompose, including hydrogen chloride, hydrogen bromide and carbon monoxide. Vapors of the unburned product will also be hazardous.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors and spray mists. Do not get in eyes. Avoid contact with skin. Avoid contact with clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk, to prevent entry into waterways, sewer, basements or confined areas. Dike the spilled material, where this is possible to prevent contamination of local water sources. Siphon the majority of the liquid into drums for use or disposal, depending on the circumstances.

Small Spills: Cover with absorbent (clay, sawdust, straw, kitty litter, etc.), to absorb the liquid. Sweep or shovel into an open drum. Clean surface thoroughly with caustic/bleach, followed by water to remove residual contamination. Absorb and sweep into the same open drum. Rinse with water, absorb, and add to the waste drum. Close the drum and dispose of properly, according to hazardous waste disposal procedures for your locality.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Keep out of the reach of children. Keep away from food, drink and animal feedstuffs. Do not taste or swallow. Do not get this material in contact with eyes. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Handle and open container with care. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store above 80°F to prevent solids formation. Keep out of the reach of children. Store locked up. Store in original tightly closed container. Keep away from food, drink and animal feedstuffs. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Naled (CAS 300-76-5)	PEL	3 mg/m ³
Naphthalene (CAS 91-20-3)	PEL	50 mg/m ³ 10 ppm
Impurities	Type	Value

DDVP (DICHLORVOS) (CAS 62-73-7)	PEL	1 mg/m ³
------------------------------------	-----	---------------------

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Naled (CAS 300-76-5)	TWA	0.1 mg/m ³	Inhalable fraction and vapor.
Naphthalene (CAS 91-20-3)	TWA	10 ppm	
Impurities	Type	Value	Form
DDVP (DICHLORVOS) (CAS 62-73-7)	TWA	0.1 mg/m ³	Inhalable fraction and vapor.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Naled (CAS 300-76-5)	TWA	3 mg/m ³
Naphthalene (CAS 91-20-3)	STEL	75 mg/m ³ 15 ppm
	TWA	50 mg/m ³ 10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Impurities	Type	Value
DDVP (DICHLORVOS) (CAS 62-73-7)	TWA	1 mg/m ³

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,3-Diethyl benzene (CAS 141-93-5)	TWA	5 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US ACGIH Threshold Limit Values: Skin designation**

DDVP (DICHLORVOS) (CAS 62-73-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

DDVP (DICHLORVOS) (CAS 62-73-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

DDVP (DICHLORVOS) (CAS 62-73-7)	Can be absorbed through the skin.
---------------------------------	-----------------------------------

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side shields or tight fitting chemical goggles should be used whenever hazardous chemicals are being handled. A full face respirator should be worn whenever there is a chance of splashing or misting.

Skin protection

Hand protection Wear chemical resistant gloves (preferably nitrile)

Other The following clothing is required: overalls or pants and long-sleeved shirt, chemical resistant gloves (preferably nitrile), chemical resistant boots. For added protection a chemical resistant apron and a full face shield are recommended. If there is a risk of splashing, misting or release the following additional PPE is required: two piece hooded chemical resistant suit with either a full face respirator or a SCBA. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are available, use detergent and hot water. Keep and wash PPE separately.

Respiratory protection For exposures that may exceed the TLV, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) is required. A full-face respirator or a SCBA may be required if misting or splashing are possible.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Do not get in eyes. Avoid contact with skin. Avoid contact with clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Liquid.
Color	Off-white to straw yellow

Odor Sharp, pungent

Odor threshold No data available

pH Not available.

Melting point/freezing point 60 °F (16 °C) 15°C / 78.8 °F (26 °C) estimated

Initial boiling point and boiling range 320 °F (160 °C) 160°C

Flash point 150 °F (66 °C) estimated

Evaporation rate Not available

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	1.00E+01 mm Hg @ 100°F
Vapor density	Havier than air
Relative density	1.67 g/cm ³ @ 25°C/4°C (77°F/39°F)
Solubility(ies)	
Solubility (water)	Emulsifies
Partition coefficient (n-octanol/water)	approx. 100 (a.i.) at ambient temperatures
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	13.90 lb/gal
Flammability class	Combustible IIIA estimated
Percent volatile	27.5 %
pH in aqueous solution	3.6 1% dilution in water
Specific gravity	1.67 @ 25°C/4°C (77°F/39°F)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions. Unstable in the presence of iron. Corrosive to aluminum and magnesium
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Excessive heat.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases. May be corrosive to metals.
Hazardous decomposition products	Heating product to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, hydrogen bromide, phosphorous oxides, and carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

This is a cholinesterase inhibiting organophosphorous pesticide.

Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin.

Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed. May cause an allergic skin reaction. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Toxic if swallowed. Harmful if inhaled. May cause an allergic skin reaction.
-----------------------	--

Product	Species	Test Results
TRUMPET® EC INSECTICIDE		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	5050 mg/kg (female, Tox Cat IV)
Inhalation		
<i>Mist</i>		
LC50	Rat	1.51 mg/l/4h Dibrom® 8, male (nose only) (Tox Cat III)
Oral		
<i>Liquid</i>		
LD50	Rat	235 mg/kg (Tox Cat II)
Skin corrosion/irritation	Causes mild skin irritation.	
Irritation Corrosion - Skin		
TRUMPET® EC INSECTICIDE	, Corrosive (Tox Cat I)	
Serious eye damage/eye irritation	Causes serious eye damage.	
Eye		
TRUMPET® EC INSECTICIDE	, Extremely Irritating (Tox Cat I)	
Respiratory or skin sensitization		
ACGIH Sensitization		
DDVP (DICHLORVOS) (CAS 62-73-7)	Dermal sensitization	
Naled (CAS 300-76-5)	Dermal sensitization	
Respiratory sensitization	Not available.	
Skin sensitization	May cause an allergic skin reaction.	
Skin sensitization		
TRUMPET® EC INSECTICIDE	, Not a sensitizer	
Germ cell mutagenicity	No clear evidence of in vivo mutagenicity in mammalian assay.	
Carcinogenicity	NALED CARCINOGENICITY: No evidence of carcinogenicity in laboratory animals with Naled Technical. However, EPA under its 1999 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP, an impurity in Naled, as having "suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential." IARC listed DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
DDVP (DICHLORVOS) (CAS 62-73-7)	2B Possibly carcinogenic to humans.	
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
NALED TERATOGENICITY: Maternal toxicity in rats was observed at 40 mg/kg/day (body weight loss, tremors, painful or difficult breathing, and decreased activity) using Naled Technical (a.i.). No developmental effects were observed at this dose level. The maternal NOEL was 10 mg/kg/day. The developmental NOEL was 40 mg/kg/day.		
NALED REPRODUCTIVE TOXICITY: In a two-generation rat reproduction study with Naled Technical (a.i.), a decrease in male body weight gain was observed at 18 mg/kg/day; however, no effects on reproduction were found in adult animals. Decreases in offspring survival, number of pups born and decreased pup weights were noted at 18 mg/kg/day. The NOEL for both adults and offspring was 6 mg/kg/day.		
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	

Aspiration hazard Not available.
Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. This product is toxic to fish, birds, and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

Components	Species	Test Results
Naled (CAS 300-76-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 0.0002 - 0.0008 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0.083 - 0.208 mg/l, 96 hours
Naphthalene (CAS 91-20-3)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha) 1.11 - 1.68 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)
 Naphthalene 3.3

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with all applicable local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal according to all applicable regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN2922
UN proper shipping name Corrosive liquids, toxic, n.o.s. (Naled RQ = 10 lbs), MARINE POLLUTANT
Transport hazard class(es)
Class 8
Subsidiary risk 6.1(PGIII)
Label(s) 8, 6.1
Packing group III
Environmental hazards
Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB3, T7, TP1, TP28
Packaging exceptions 154
Packaging non bulk 203
Packaging bulk 241

IATA

UN number UN2922
UN proper shipping name Corrosive liquids, toxic, n.o.s. (Naled)
Transport hazard class(es)
Class 8
Subsidiary risk 6.1(PGIII)
Label(s) 8, 6.1
Packing group III
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN2922
UN proper shipping name Corrosive liquids, toxic, n.o.s. (Naled), MARINE POLLUTANT
Transport hazard class(es)
Class 8
Subsidiary risk 6.1(PGIII)
Label(s) 8, 6.1
Packing group III
Environmental hazards
Marine pollutant Yes
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

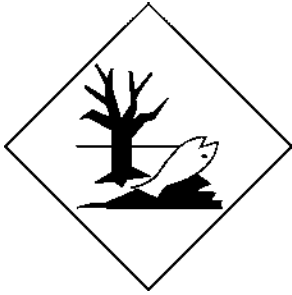
DOT



IATA; IMDG



Marine pollutant



General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

This product is registered under EPA/FIFRA Regulations as a RESTRICTED USE PESTICIDE. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

DDVP (DICHLORVOS) (CAS 62-73-7)	Listed.
Naled (CAS 300-76-5)	Listed.
Naphthalene (CAS 91-20-3)	Listed.

SARA 304 Emergency release notification

DDVP (DICHLORVOS) (CAS 62-73-7) 10 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
DDVP (DICHLORVOS)	62-73-7	10	1000 lbs		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Naled	300-76-5	78
Naphthalene	91-20-3	< 1
DDVP (DICHLORVOS)	62-73-7	<= 0.4

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

DDVP (DICHLORVOS) (CAS 62-73-7)
Naphthalene (CAS 91-20-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Naphthalene (CAS 91-20-3)

US. Massachusetts RTK - Substance List

1,3-Diethyl benzene (CAS 141-93-5)

DDVP (DICHLORVOS) (CAS 62-73-7)

Naled (CAS 300-76-5)

Naphthalene (CAS 91-20-3)

US. New Jersey Worker and Community Right-to-Know Act

1,3-Diethyl benzene (CAS 141-93-5)

DDVP (DICHLORVOS) (CAS 62-73-7)

Naled (CAS 300-76-5)

Naphthalene (CAS 91-20-3)

US. Pennsylvania Worker and Community Right-to-Know Law

1,3-Diethyl benzene (CAS 141-93-5)

DDVP (DICHLORVOS) (CAS 62-73-7)

Naled (CAS 300-76-5)

Naphthalene (CAS 91-20-3)

US. Rhode Island RTK

DDVP (DICHLORVOS) (CAS 62-73-7)

Naled (CAS 300-76-5)

Naphthalene (CAS 91-20-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

DDVP (DICHLORVOS) (CAS 62-73-7)

Listed: January 1, 1989

Naphthalene (CAS 91-20-3)

Listed: April 19, 2002

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date Draft version.

References ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
EPA: Environmental Protection Agency
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Agency
SARA: Superfund Amendments and Reauthorization Act
TSCA: Toxic Substances Control Act
DOT: Department of Transportation
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association

Version # Draft version.

Further information Not available.

HMIS® ratings Health: 4*
Flammability: 2
Physical hazard: 0

NFPA ratings

Health: 4
Flammability: 2
Instability: 0

Disclaimer

This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

©2015 AMVAC Chemical Corporation. All Rights Reserved. AMVAC, Dibrom, Dibrom 8 Emulsive, and the Beaker Logo are trademarks owned by AMVAC Chemical Corporation. Chemtrec is a trademark of the American Chemistry Council, Inc. HMIS is a registered trade and service mark of the American Coatings Association. NFPA is a trademark of the National Fire Protection Association, Inc.

VectoBac[®] 12AS

BIOLOGICAL LARVICIDE

AQUEOUS SUSPENSION

Active Ingredient:

<i>Bacillus thuringiensis</i> , subsp. <i>israelensis</i> , strain AM 65-52, fermentation solids and solubles	11.61%
Other Ingredients	88.39%
Total	100.00%

Potency: 1200 International Toxic Units (ITU) per mg (Equivalent to 4.84 billion ITU per gallon, 1.279 billion ITU per liter)

There is no direct relationship between intended activity (potency) and the Percent Active Ingredient by Weight.

EPA Reg. No.73049-38
EPA Est. No. 33762-IA-001

List No. 05605

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Physical and Chemical Hazards
- 3.0 Directions for Use
 - 3.1 Chemigation
- 4.0 Storage and Disposal
- 5.0 Application Directions
- 6.0 Nuisance Flies
- 7.0 Nuisance Aquatic Midges
- 8.0 Ground and Aerial Application
- 9.0 Small Quantity Dilution Rates
- 10.0 Chemigation
 - 10.1 Rice-Flood (Basin) Chemigation
- 11.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0 FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

**2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)
CAUTION**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse. Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Physical and Chemical Hazards

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

Do not apply when weather conditions favor drift from treated areas. Do not apply to metallic painted objects, such as automobiles, as spotting may occur. If spray is deposited on metallic painted surfaces, wash immediately with soap and water to avoid spotting.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

3.1 Chemigation

Do not apply this product through any type of irrigation system unless labeling on chemigation is followed.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **STORAGE:** Store in a cool, [less than 86° F (30° C)], dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

CONTINUED

5.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

Mosquito Habitat	Suggested Rate Range*
(Such as the following examples): Irrigation ditches, roadside ditches, flood water, standing ponds, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	0.25 - 2 pts/acres

In addition, standing water containing mosquito larvae, in fields growing crops such as: Alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts, may be treated at the recommended rates.

When applying this product to standing water containing mosquito larvae in fields growing crops, do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Polluted water (such as sewage lagoons, animal waste lagoons).	1 - 2 pts/acre
--	----------------

*Use higher rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted, and/or algae are abundant.

Blackflies Habitat	Suggested Rate Range
Streams	
Stream water† (= ppm) for 1 minute exposure time	0.5 - 25 mg/liter
Stream water† (= ppm) for 10 minutes exposure time	0.05 - 2.5 mg/liter

†Use higher rate range when stream contains high concentration of organic materials, algae, or dense aquatic vegetation.

†Discharge is a principal factor determining carry of Bti. Use higher rate or increase volume by water dilution in low discharge rivers or streams under low volume (drought) conditions.

6.0 NUISANCE FLIES

For control of nuisance flies (*Psychoda* spp., *Chironomus* spp.) in sewage treatment facilities utilizing trickling filter systems.

APPLICATION DIRECTIONS

Nuisance Fly Habitat	Suggested Rate Range*
Trickling filter system of wastewater treatment plants	10 - 20 mg/liter a.(0.833-1.67 ml) per liter of wastewater feed to the filter per 30 minutes

* Use high rate for control of *Chironomus* spp. Apply undiluted with pre-calibrated pump or other device into the wastewater feeding into the filters for a period of 30 minutes. Repeat applications as needed after 2-4 weeks. Control of *Chironomus* spp. may take up to 2 weeks.

7.0 NUISANCE AQUATIC MIDGES

For control of *Chironomine* midges (*Chironominae: Chironomini*) inhabiting shallow, manmade and natural lakes or ponds.

APPLICATION DIRECTIONS

Nuisance Midge Habitat	Suggested Rate Range*
Shallow Lakes and Ponds per sewage oxidation ponds (less than acre 6 feet deep)	1 gallon (3,785.5 ml) per acre

* Apply diluted with water in total volume of 5 gallons/acre by pouring or spraying over the surface to be treated with pre-calibrated device. Repeat application as needed after 2-4 weeks. Control of *Chironomine* midges may take up to 2 weeks.

8.0 GROUND AND AERIAL APPLICATION

VectoBac 12AS may be applied in conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

For most ground spraying, apply in 5-100 gallons of water per acre using hand-pump, airblast, mist blower, etc., spray equipment.

For aerial application, VectoBac 12AS may be applied either undiluted or diluted with water. For undiluted applications, apply 0.25 to 2.0 pt/acre of VectoBac 12AS through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers.

For diluted application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding the VectoBac 12AS. VectoBac 12AS suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

Rinse and flush spray equipment thoroughly following each use.

For blackfly aerial applications, VectoBac 12AS can be applied undiluted via fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or open pipes. Rate of application will be determined by the stream discharge and the required amount of VectoBac 12AS necessary to maintain a 0.5 - 25 ppm concentration in the stream water. VectoBac 12AS can also be applied diluted with similar spray equipment. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

9.0 SMALL QUANTITY DILUTION RATES

Gallons Spray Solution/Acre (Ounces Needed per Gallon of Spray)

VectoBac 12AS			
Rate in Pints			
Per Acre	10 Gal/A	25 Gal/A	50 Gal/A
0.25 (4 oz)	0.4	0.16	0.08
0.5 (8 oz)	0.8	0.32	0.16
1.0 (16 oz)	1.6	0.64	0.32
2.0 (32 oz)	3.2	1.28	0.64

10.0 CHEMIGATION

Apply this product through flood (basin) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

A person knowledgeable of this chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

10.1 RICE-FLOOD (BASIN) CHEMIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

VectoBac 12AS is metered or dripped into rice floodwater at application stations positioned at the point of introduction (levee cut) of water into each rice field or pan. Two to three pints of VectoBac 12AS are diluted in water to a final volume of 5 gallons. The diluted solution is contained in a 5 gallon container and metered or dispersed into the irrigation water using a constant flow device at the rate of 80 ml per minute. Introduction of the solution should begin when 1/3 to 1/2 of the pan or field is covered with floodwater. Delivery of the solution should continue for a period of approximately 4-1/2 hours. Floodwater depth should not exceed 10-12 inches to prevent excessive dilution of VectoBac 12AS which could result in reduced larval kill.

Agitation is not required during the period in which the VectoBac 12AS solution is being dispersed.

Application of VectoBac 12AS into rice floodwater is not permitted using a pressurized water and pesticide injection system.

11.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier**

MATERIAL NAME: VectoBac® 12 AS Biological Larvicide Aqueous Suspension
Synonyms: VectoBac 12AS
EPA Reg No.: 73049-38
Code Number: 15576, 15577, 15578, 21894, 83872, A515579 and A585873
List Number: 05605
Chemical Family: Not applicable; microbial product

1.2 Relevant Identified Uses and Uses Advised Against**Identified Uses:** Mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet**

Supplied By: Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS**Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not classified

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

None



VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

Precautionary Statement:**Prevention**

Not required

Response

Not required

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.3 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i>	11.61
Trade Secret	Other Ingredients – withheld as Trade Secret	88.39

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. Cover irritated skin with an emollient. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. Give large quantities of water. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**INHALATION:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Slight eye and skin irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical

Keep containers cool by spraying with water if exposed to fire.

Thermal decomposition products

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Wear a dust/mist filtering respirator, eye protection and gloves.

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Recover product with inert material (earth, sand, vermiculite), place into appropriate container for disposal. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: Regulatory Information for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including and Incompatibilities

Store in a cool, dry place. For further information refer to local country registration and label.

Incompatibilities

None Known

7.3 Specific End Use(s)

Mosquito Larvicide.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None Established

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C) or a NIOSH approved respirator with any N, P, R or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light brown liquid	Odor:	Malt-like
pH:	5.0 (1% w/v susp)	Odor Threshold:	Not Determined
Melting Point:	Not Determined	Boiling Point:	Not Determined
Specific Gravity:	Not Determined	Solubility (H ₂ O):	Not Determined
Relative Density:	1.06 g/cm ³ @ 20 °C	Evaporation Rate:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Decomposition Temp.:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Determined
VOC:	Not Determined	Flammability Class:	Not Flammable
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

Keep away from incompatible substances.

VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

Diluted or undiluted product can cause corrosion if left in prolonged contact with aluminum surfaces (e.g. spray equipment, aircraft components).

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects****Acute Effects – Product Toxicology Studies**

Oral Toxicity: LD₅₀ > 5,000 mg/kg (rat)

Dermal Toxicity: LD₅₀ > 5,000 mg/kg (rabbit)

Inhalation Toxicity: LC₅₀ > 5.34 mg/L air

Corrosiveness: Not corrosive to humans, can be corrosive to aluminum.

Dermal Irritation: slightly-irritating, (category IV)

Ocular Irritation: slightly-irritating, (category IV)

Dermal Sensitization: Not a skin sensitizer (mice)

Mutagenicity Information: Components of this product are not listed as mutagens.

Carcinogenicity Information: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

Developmental/Reproductive Toxicity: This material is not a teratogenic compound.

Special Target Organ: Not Applicable

Aspiration Hazard: Not Applicable

Repeat Dose Studies: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**

Fish: LC₅₀ >370 mg/L (96-H, Rainbow Trout)

Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)

LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)

Invertebrates: LC₅₀ >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Not Listed

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

State Right-To-Know: Not listed.

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR.

15.2 FIFRA – Pesticide Labeling

EPA registration Number 73049-38

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**KEEP OUT OF REACH OF CHILDREN
PRECAUTIONARY STATEMENT
HAZARD TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

PHYSICAL AND CHEMICAL HAZARDS

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

DIRECTIONS FOR USE

It is in violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to treated finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

**VectoBac® 12AS Biological Larvicide Aqueous Suspension**

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Storage: Store in a cool, [less than 86°F (30° C)] dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: N/D
Flammability: N/D
Instability: N/D

HMIS Hazard Ratings

Health: N/D
Flammability: N/D
Instability: N/D

0 = minimal
1 = slight
2 = moderate
3 = serious
4 = Extreme

REASON FOR ISSUE: Added new toxicity study to Section 11, changed classification, symbol and Prevention/Response in Section 2.

APPROVAL DATE: 01/06/20

SUPERSEDES DATE: 04/12/19

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

N/D = Not Determined

L = Listed

S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent



SAFETY DATA SHEET

10 of 10

VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020

VectoBac[®] G

BIOLOGICAL LARVICIDE

GRANULE

ACTIVE INGREDIENT:

<i>Bacillus thuringiensis</i> , subspecies <i>israelensis</i> , strain AM 65-52, fermentation solids, spores, and insecticidal toxins	2.80%
OTHER INGREDIENTS	97.20%
TOTAL	100.00%

Potency: 200 International Toxic Units (ITU) per mg (Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-10

EPA Est. No. 33762-IA-001

List No. 05108

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0

FIRST AID

If in Eyes

- Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

4.0 APPLICATION DIRECTIONS

VectoBac G is an insecticide for use against mosquito larvae.

Mosquitoes Habitat

Suggested Range Rate*

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	2.5 - 10 lbs. / acre
--	----------------------

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

5.0 STORAGE AND DISPOSAL

Do not contaminate potable water, food or feed by storage or disposal.

Storage: Store in a cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

6.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of
Valent BioSciences Corporation.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoBac® G Biological Larvicide Granules**Synonyms:** VectoBac® GS**EPA Reg No.:** 73049-10**Code Number:** N/A**List Number:** 05103; 05108**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Eye Irritation – Category 2B

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

Causes Eye Irritation



VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling
Wear protective clothing, eye protection and gloves

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	2.8
Trade Secret	Other ingredients	97.2

4. FIRST AID MEASURES**4.1 Description of First Aid Measures**

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye and skin irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Hazardous compounds, such as carbon oxides, nitrogen oxides

Protective Equipment and precautions for firefighters

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear Goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Light Brown granular solid	Odor Threshold:	Musty - Characteristic
pH:	5.4 (10% dispersion in water)	Boiling Point:	Not applicable
Melting Point:	Not Applicable	Solubility (H ₂ O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.48 g/mg
Octanol/H ₂ O Coeff:	Not Applicable	Evaporation Rate:	Not Applicable
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Applicable	Vapor Pressure:	Not Applicable

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for Technical, unless noted)ORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 2.84 mg/L air (maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Mildly or slightly irritating

OCULAR IRRITATION: Slightly irritating

DERMAL SENSITIZATION: (For Formulated Product) Not a sensitizer (guinea pig)

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

MUTAGENICITY INFORMATION: Components of this product are not expected mutagens.
CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic
SPECIAL TARGET ORGAN EFFECTS: Slight Eye or skin Irritation.
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >370 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: LC₅₀ >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-10

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

KEEP OUT OF REACH OF CHILDREN**CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

STORAGE AND DISPOSAL

Do not contaminate potable water, food, or feed by storage or disposal.

Storage: Store in cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container.

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

16. OTHER INFORMATION**NFPA Hazard Ratings**Health: 1
Flammability: 0
Instability: 0**HMIS Hazard Ratings**Health: 1
Flammability: 0
Instability: 00 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 05/22/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

**VectoBac® G Biological Larvicide Granules****SDS# VBC-0020 Revision 5****ISSUED 01/03/20**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020

VectoBac[®] GS

BIOLOGICAL LARVICIDE

GRANULE

ACTIVE INGREDIENT:

<i>Bacillus thuringiensis</i> , subspecies <i>israelensis</i> , strain AM 65-52, fermentation solids, spores, and insecticidal toxins	2.80%
OTHER INGREDIENTS	97.20%
TOTAL	100.00%

Potency: 200 International Toxic Units (ITU) per mg (Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-10

EPA Est. No. 33762-IA-001

List No. 05103

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0

FIRST AID

If in Eyes

- Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

4.0 APPLICATION DIRECTIONS

VectoBac GS is an insecticide for use against mosquito larvae.

Mosquitoes Habitat

Suggested Range Rate*

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	2.5 - 10 lbs. / acre
--	----------------------

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

5.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Storage: Store in a cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of
Valent BioSciences Corporation.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoBac® G Biological Larvicide Granules**Synonyms:** VectoBac® GS**EPA Reg No.:** 73049-10**Code Number:** N/A**List Number:** 05103; 05108**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Eye Irritation – Category 2B

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

Causes Eye Irritation



VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling
Wear protective clothing, eye protection and gloves

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	2.8
Trade Secret	Other ingredients	97.2

4. FIRST AID MEASURES**4.1 Description of First Aid Measures**

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye and skin irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Hazardous compounds, such as carbon oxides, nitrogen oxides

Protective Equipment and precautions for firefighters

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear Goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Light Brown granular solid	Odor Threshold:	Musty - Characteristic
pH:	5.4 (10% dispersion in water)	Boiling Point:	Not applicable
Melting Point:	Not Applicable	Solubility (H ₂ O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.48 g/mg
Octanol/H ₂ O Coeff:	Not Applicable	Evaporation Rate:	Not Applicable
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Applicable	Vapor Pressure:	Not Applicable

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for Technical, unless noted)ORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 2.84 mg/L air (maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Mildly or slightly irritating

OCULAR IRRITATION: Slightly irritating

DERMAL SENSITIZATION: (For Formulated Product) Not a sensitizer (guinea pig)

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

MUTAGENICITY INFORMATION: Components of this product are not expected mutagens.
CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic
SPECIAL TARGET ORGAN EFFECTS: Slight Eye or skin Irritation.
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >370 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: LC₅₀ >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-10

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

KEEP OUT OF REACH OF CHILDREN**CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

STORAGE AND DISPOSAL

Do not contaminate potable water, food, or feed by storage or disposal.

Storage: Store in cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container.

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**VectoBac® G Biological Larvicide Granules**

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

16. OTHER INFORMATION**NFPA Hazard Ratings**Health: 1
Flammability: 0
Instability: 0**HMIS Hazard Ratings**Health: 1
Flammability: 0
Instability: 00 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 05/22/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.



SAFETY DATA SHEET

11 of 11

VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020

VectoBac® WDG

BIOLOGICAL LARVICIDE

WATER DISPERSIBLE GRANULE



FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:

Bacillus thuringiensis, subsp. *israelensis*, strain AM 65-52
fermentation solids, spores, and insecticidal toxins* 37.4%

OTHER INGREDIENTS 62.6%

TOTAL..... 100.0%

*Potency: 3000 International Toxic Units (ITU) per mg of product
Equivalent to 1.36 billion ITU/lb of product.

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-56

EPA Est. No. 33762-IA-001

List No. 60215

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazards to Humans and Domestic Animals
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Small Quantity Dilution Rates
- 6.0 Ground and Aerial Application
 - 6.1 Aerial Application
- 7.0 Storage and Disposal
- 8.0 Notice to User

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0 FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing dust or spray mist. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not contaminate water when disposing of equipment washwater or rinsate.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply directly to treated, finished drinking water reservoirs.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

Do not apply this product through any type of irrigation system.

4.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

VectoBac® WDG Biological Larvicide Water Dispersable Granule (hereafter referred to as VectoBac WDG) is an insecticide for use against mosquito larvae.

Mosquito Larvae Control in Urban and Rural Areas Mosquito Habitat Application Rate Range*

Irrigation ditches, roadside	1.75 - 7.0 oz/acre
ditches, flood water, standing	(50 - 200 g/acre)
pools, woodland pools, snow	(125 - 500 g/ha)
melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	

Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water such as personal rainwater catchment cisterns.

4.0 APPLICATION DIRECTIONS (CONT'D)

Mosquito Habitat	Applications Rate Range*
------------------	--------------------------

Polluted water, such as sewage and animal waste lagoons	7.0 - 14.0 oz/acre (200 - 400 g/acre) (500 - 1000 g/ha)
---	---

Standing water, which contains mosquito larvae, in fields with growing crops (e.g., alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts) can be treated at the specified application rates.

* Use higher application rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, and/or algae are abundant.

5.0 SMALL QUANTITY DILUTION RATES

For when small areas are to be treated, the table below can be used to determine application rates.

Gallons Spray Mixture/Acre
(Ounces Needed per Gallon of Spray)

Rates in		Final concentration, ounces/gallon spray		
Ounces/Acre	Grams/A	10 Gal/A	25 Gal/A	50 Gal/A
1.75	50	0.175	0.07	0.04
3.5	100	0.35	0.14	0.07
7.0	200	0.7	0.28	0.14
14.0	400	1.4	0.565	0.28

6.0 GROUND AND AERIAL APPLICATION (In Urban and Rural Areas)

VectoBac WDG may be applied using conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. For application, first add VectoBac WDG to water to produce a final spray mixture.

The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. For application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or manual agitation to provide moderate circulation of water before adding VectoBac WDG. Backpack and compressed air sprayers may be agitated by shaking after adding VectoBac WDG to the water in the sprayer. VectoBac WDG suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. Do not mix more VectoBac WDG than can be used in a 48-hour period. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

For ground spraying, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 125-1000 g/ha) in 5 - 100 gallons of water per acre (47 - 950 liters/ha) using hand-pump, airblast, mist blower, or other spray equipment.

For aerial application, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 125-1000 g/ha) in 0.25 - 10 gallons of water per acre (2.4 - 93.5 liters/ha) through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers to provide uniform coverage of the target area.

Rinse and flush spray equipment thoroughly following each use.

6.1 Aerial Application

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

7.0 STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in cool [59 - 86°F (15 - 30°C)], dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

8.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences LLC.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoBac® WDG**Synonyms:** VectoBac® WG, VectoBac 37 WG, Gnatrol WDG, Gnatrol DG**EPA Reg No.:** 73049-56**Code Number:** 80893, 33921**List Number:** 60215**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC

1910 Innovation Way, Suite 100

Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS**Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not Classified

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

None

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	37.4
Trade Secret	Other ingredients	62.6

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye and skin irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear impervious gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a dry, cool place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Biological mosquito larvicide

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4	ISSUED 01/03/20
[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

Appropriate Engineering Controls

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Brown fine granules	Odor :	Musty odor
pH:	5.8 (10% dispersion in water)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.36 g/ml
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Kinematic Viscosity:	Not Determined

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for product)ORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 0.014 mg/L air (rat- nose only; maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Weakly irritating

OCULAR IRRITATION: Mildly irritating

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.
CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic
SPECIAL TARGET ORGAN EFFECTS: Not Applicable.
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >370 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: EC₅₀ >50 mg/L (48-H) (Daphnia)

Bees: Essentially nontoxic to honey bees

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

Not applicable

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt
CERCLA STATUS: Not regulated as hazardous
SARA STATUS: Acute: No Chronic: No Fire: No CDT: No
RCRA STATUS: Not regulated as hazardous
State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-56
EPA Pesticide Label signal word: CAUTION
Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

KEEP OUT OF REACH OF CHILDREN**CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash before reuse. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated finished drinking water reservoirs.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Storage: Store in cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling:

Plastic Container: Nonrefillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

16. OTHER INFORMATION**NFPA Hazard Ratings**Health: 0
Flammability: 0
Instability: 0**HMIS Hazard Ratings**Health: 0
Flammability: 0
Instability: 00 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 04/28/17

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences

(TM) = Registered Trademark of Valent BioSciences

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

VectoBac® WDG Biological Larvicide**SDS# VBC-0019 Revision 4****ISSUED 01/03/20**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



VectoLex[®] FG

BIOLOGICAL LARVICIDE

FINE GRANULE

ACTIVE INGREDIENT:

<i>Bacillus sphaericus</i> 2362, Serotype H5a5b, strain ABTS 1743 fermentation solids, spores, and insecticidal toxins . . .	7.5%
OTHER INGREDIENTS	92.5%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.
Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-20

EPA Est. No. 33762-IA-001

List No. 05722

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Storage and Disposal
- 5.0 Directions for Use - VectoLex FG
 - 5.1 Application Directions
- 6.0 Notice to User

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitizations.

2.2 Environmental Hazards

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision. IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 DIRECTIONS FOR USE - VECTOLEX FG

5.1 Application Directions

MOSQUITO CONTROL

VectoLex[®] FG Biological Larvicide Fine Granule (hereafter referred to as VectoLex FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex FG can be applied to areas that contain fish, other aquatic life, and plants. VectoLex FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

CONTINUED

I. For control of mosquito larvae species* in the following non-crop sites:

Habitat	Rate Range
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, impounded wastewater associated with fruit and vegetable processing.	5-20 lbs/acre**
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, retention ponds, detention ponds and seepage ponds.	5-20 lbs/acre**
Marine/Coastal Areas: Salt marshes, mangroves, estuaries.	5-20 lbs/acre**
Water Bodies: Natural and manmade aquatic sites such as lakes, ponds, rivers, canals, streams and livestock watering ponds and troughs.	5-20 lbs/acre**
Dormant Rice Fields: Impounded water in dormant rice fields. (For application only during the interval between harvest and preparation of the field for the next cropping cycle.)	5-20 lbs/acre**
Waste Tires: Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For the control of mosquito larvae species* in the following agricultural/crop sites where mosquito breeding occurs:

Habitats:	Rate Range
Rice, pastures/hay fields, orchards, citrus groves, irrigated crops.	5-20 lbs/acre**

Apply VectoLex FG uniformly by aerial or conventional ground equipment. Reapply VectoLex FG as needed after 1 to 4 weeks.

* Mosquito species effectively controlled by VectoLex FG, including many of those known to carry/transmit West Nile virus:

Culex spp.
Aedes vexans
Ochlerotatus melanimon (*Aedes melanimon*)
Ochlerotatus stimulans (*Aedes stimulans*)
Ochlerotatus nigromaculis (*Aedes nigromaculis*)
Psorophora columbiae
Psorophora ferox
Ochlerotatus triseriatus (*Aedes triseriatus*)
Ochlerotatus sollicitans (*Aedes sollicitans*)
Anopheles quadrimaculatus
Coquillettidia perturbans

**Use higher rates (10 to 20 lbs/acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

VectoLex[®] FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoLex[®] FG Biological Larvicide**Synonyms:** VectoLex[®] CG, VectoLex[®] G, VectoLex[®] 7.5 GR, VectoLex[®] WSP, ABG-6185**EPA Reg No.:** 73049-20**Code Number:** None**List Number:** 05722**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences Corporation
870 Technology Way
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Eye Irritation – Category 2B

Skin Sensitizer – Category 1A

2.2 Labeling Elements**Symbol(s)**

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

Signal Word

WARNING

Hazard Statement(s)

Causes eye irritation
May cause an allergic skin reaction

2.3 Precautionary Statement:

Prevention

Avoid breathing dust
Wear dust mask when handling
Wash thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace.
Wear protective clothing/eye protection/impervious gloves

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
IF ON SKIN: Wash with soap and water.
Take off contaminated clothing and wash it before reuse.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Safety

Avoid contact with eyes

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	EC No.	(Classification)	Percent
None	<i>Bacillus sphaericus</i> 2362, serotype H5a5b, strain ABTS 1743 fermentation solids		Mildly irritating to eyes – Cat 2B	7.5%
Trade Secret	Other ingredients		Not classified	82.5%

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**INHALATION:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.**4.2 Most important Symptoms and Effects, both Acute and Delayed****Acute**

Possible eye irritation and skin sensitization

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear impervious gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a dry, cool place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wear gloves made of impervious materials. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0	ISSUED 04/30/15
[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]	

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance/Odor:	Tan to Brown fine granules	Odor :	Characteristic odor
pH:	Not Determined	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	None of the components are classified as flammable or highly flammable, it can be concluded that the preparation itself will not be classified as highly flammable.
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact:	Yes
Skin Contact:	Yes
Ingestion:	No
Inhalation:	No

ACUTE EFFECTS Product Toxicology Studies (Data for TGA)

ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD₅₀ > 5,000 mg/kgDERMAL TOXICITY: LD₅₀ > 2,000 mg/kgINHALATION TOXICITY: LC₅₀ > 0.09 mg/L highest attainable concentration

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: slightly-irritating

OCULAR IRRITATION: Eye irritant – Cat 2B

DERMAL SENSITIZATION: Skin sensitizer – Cat 1A

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)LC₅₀ >15.5 mg/L (96-H, Blue Gill)Bird: LC₅₀ >9g /kg (Acute Oral - Mallard)Invertebrates: EC₅₀ >15.5 (48-H) (Daphnia)

Bees: Essentially non-toxic to bees

12.2 Persistence and Degradability

No data available

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 0

ISSUED 04/30/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

VectoLex® FG Biological Larvicide**SDS# VBC-0046 Revision 0****ISSUED 04/30/15**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-20

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

KEEP OUT OF REACH OF CHILDREN**CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

VectoLex® FG Biological Larvicide**SDS# VBC-0046 Revision 0****ISSUED 04/30/15**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in cool, dry place.**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.**16. OTHER INFORMATION****NFPA Hazard Ratings**Health: 1
Flammability: 0
Instability: 0**HMIS Hazard Ratings**Health: 1
Flammability: 0
Instability: 00 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: New GHS Format

APPROVAL DATE: 4/30/15

SUPERSEDES DATE: --/--/--

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences Corp.

(TM) = Registered Trademark of Valent BioSciences Corp.

N/D = Not Determined

L = Listed

S = Short-term

VectoLex® FG Biological Larvicide**SDS# VBC-0046 Revision 0****ISSUED 04/30/15**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences Corporation and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences Corporation nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences Corporation to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

VectoLex® WDG

BIOLOGICAL LARVICIDE

WATER DISPERSIBLE GRANULE

ACTIVE INGREDIENT:

Bacillus sphaericus 2362, Serotype H5a5b, Strain
ABTS 1743 fermentation solids, spores and
insecticidal toxins 51.2% w/w

OTHER INGREDIENTS 48.8% w/w

TOTAL 100.0% w/w

Potency: This product contains 650 BsITU/mg or 0.299 Billion BsITU/lb.

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-57

EPA Est. No. 33762-IA-001

List No. 60201

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans and Domestic Animals
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
 - 3.1 Chemigation
- 4.0 Storage and Disposal
- 5.0 Application Directions
- 6.0 Ground and Aerial Application
- 7.0 Notice to User

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if inhaled. Avoid contact with eyes or clothing and breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

3.1 Chemigation

Do not apply this product through any type of irrigation system.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then, offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 APPLICATION DIRECTIONS

VectoLex® WDG Biological Larvicide Water Dispersible Granule (hereafter referred to as VectoLex WDG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex WDG can be applied to areas that contain fish, other aquatic life and plants. VectoLex WDG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

Do not apply when wind speed favors drift beyond the area of treatment.

5.0 APPLICATION DIRECTIONS (Cont'd)

I. For control of mosquito larvae species* in the following non-crop sites.

Habitats Application Rate Range

Wastewater: 0.5-1.5 lbs/acre

Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, and impounded wastewater associated with fruit and vegetable processing (8-24 oz/acre)

Stormwater/Drainage Systems: 0.5-1.5 lbs/acre
Storm sewers, catch basins, drainage ditches, retention ponds, detention ponds and seepage ponds (8-24 oz/acre)

Marine/Coastal Areas: 0.5-1.5 lbs/acre
Salt marshes, mangroves, and estuaries (8-24 oz/acre)

Water Bodies: 0.5-1.5 lbs/acre
Natural and manmade aquatic sites such as lakes, ponds, rivers, canals and streams (8-24 oz/acre)

Dormant Rice Fields: 0.5-1.5 lbs/acre
Impounded water in dormant rice fields (For application only during the interval between harvest and preparation of the field for the next cropping cycle) (8-24 oz/acre)

II. For control of mosquito larvae species* in the following agricultural/crop sites where mosquito breeding occurs.

Habitats Rate Range

Rice, pastures/hay fields, orchards, citrus groves and irrigated crops 0.5-1.5 lbs/acre (8-24 oz/acre)

Use higher rates (1-1.5 lbs/acre or 16-24 oz/acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover.

Apply uniformly by aerial or conventional ground equipment. Reapply as needed after 1-4 weeks.

*Mosquito species effectively controlled by VectoLex WDG:

Culex spp.

Aedes vexans

Ochlerotatus melanimon (*Aedes melanimon*)

Ochlerotatus stimulans (*Aedes stimulans*)

Ochlerotatus nigromaculis (*Aedes nigromaculis*)

Psorophora columbiae

Psorophora ferox

Ochlerotatus triseriatus (*Aedes triseriatus*)

Ochlerotatus sollicitans (*Aedes sollicitans*)

Anopheles quadrimaculatus

Coquillettidia perturbans

6.0 GROUND AND AERIAL APPLICATION

VectoLex WDG may be applied using conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. For application, first add the VectoLex WDG to water to produce a final spray mixture. The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. For application, fill the mix tank or plane hopper with the desired quantity of water. **Start the mechanical or manual agitation to provide moderate circulation of water before adding the VectoLex WDG.** Backpack and compressed air sprayers may be agitated by shaking after adding VectoLex WDG to the water in the sprayer. VectoLex WDG suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. Do not mix more VectoLex WDG than can be used in a 48 hour period. **AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.**

For ground application, apply 0.5-1.5 lbs or 8-24 oz (227-680 g) of VectoLex WDG in 5-100 gallons of water per acre using hand-pump, airblast, mist blower, or other spray equipment. For aerial application, apply 0.5-1.5 lbs or 8-24 oz (227-680 g) of VectoLex WDG per acre through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers at a convenient dilution rate. For aerial application, apply 0.5-10 gal of the final spray mixture per acre to provide uniform coverage of the target area.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential spray drift. The applicator and treatment coordinator are responsible for considering all these factors.

Rinse and flush spray equipment thoroughly following each use.

Amount of VectoLex WDG needed to treat small areas:

Area To Treat	Application Rate of VectoLex WDG/Acre		
	0.5 lb (8 oz)	1 lb (16 oz)	1.5 lb (24 oz)
1/4 Acre	0.125 lb (2 oz)	0.25 lb (4 oz)	0.375 lb (6 oz)
1/2 Acre	0.25 lb (4 oz)	0.5 lb (8 oz)	0.75 lb (12 oz)
10 Acres	5 lb (80 oz)	10 lb (160 oz)	15 lb (240 oz)
20 Acres	10 lb (160 oz)	20 lb (320 oz)	30 lb (480 oz)

7.0 NOTICE TO USER

To the extent consistent with applicable law, Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, User assumes all risks of use, storage or handling not in accordance with accompanying directions.

VectoLex is a registered trademark of Valent BioSciences Corporation.

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoLex® WDG Biological Larvicide**Synonyms:** VectoLex® WG, ABG-6491**EPA Reg No.:** 73049-57**Code Number:** 82835**List Number:** 60201**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Eye Irritation – Category 2B

2.2 Labeling Elements**Symbol(s)**

Symbol not required

Signal Word

WARNING

Hazard Statement(s)

Causes eye irritation

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus sphaericus</i> 2362, serotype H5a5b, strain ABTS 1743 fermentation solids	51.2
Trade Secret	Other ingredients	48.8

4. FIRST AID MEASURES**4.1 Description of First Aid Measures**

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a dry, cool place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear Goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Brown fine granules	Odor :	Faint musty odor
pH:	5.63 (1% sol'n)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	None of the components are classified as flammable or highly flammable, it can be concluded that the preparation itself will not be classified as highly flammable.
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for product)ORAL TOXICITY: LD₅₀ > 5,050 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,050 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 0.435 mg/L air (maximum attainable concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Slightly irritating

OCULAR IRRITATION: Mildly irritating

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: Eye Irritation.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)LC₅₀ >15.5 mg/L (96-H, Blue Gill)Bird: LC₅₀ >9g /kg (Acute Oral - Mallard)Invertebrates: EC₅₀ >15.5 (48-H) (Daphnia)

Bees: Essentially non-toxic to bees

12.2 Persistence and Degradability

No data available

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

VectoLex® WDG Biological Larvicide**SDS# VBC-0045 Revision 4****ISSUED 01/08/20**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-57

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

KEEP OUT OF REACH OF CHILDREN**CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if inhaled. Avoid contact with eyes or clothing and breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

VectoLex® WDG Biological Larvicide

SDS# VBC-0045 Revision 4

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage:

Store in cool [59-86° F (15-30° C)], dry place.

Pesticide Disposal:

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: 1
Flammability: 0
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/08/20

SUPERSEDES DATE: 06/10/19

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents

VectoLex® WDG Biological Larvicide**SDS# VBC-0045 Revision 4**

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling..

VectoLex[®] WSP

BIOLOGICAL LARVICIDE

WATER SOLUBLE POUCH

ACTIVE INGREDIENT:

Bacillus sphaericus 2362, Serotype H5a5b, strain ABTS
1743 Technical Powder (670 BsITU/mg) 7.5%

OTHER INGREDIENTS 92.5%

TOTAL 100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-20

List No. 05722

EPA Est. No. 33762-IA-001 (Lot No. Suffix 'N8')

EPA Est. No. 33967-NJ-1 (Lot No. Suffix 'Q5')

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazards to Humans and Domestic Animals
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Storage and Disposal
- 5.0 Directions for Use - VectoLex Water Soluble Pouches (WSP)
 - 5.1 Application Directions
- 6.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0

FIRST AID

If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0

PRECAUTIONARY STATEMENTS

2.1

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

2.2

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

4.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non refillable container. Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Water Soluble Pouches, dispose of empty outer foil bag in trash.

Continued

5.0 DIRECTIONS FOR USE - VECTOLEX WATER SOLUBLE POUCHES (WSP)

Once the foil bag containing Water Soluble Pouches is opened, use pouches within one day.

5.1 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoLex WSP is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoLex WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds or wildlife.

I. For control of mosquito larvae species* in the following non-crop sites:

Habitat	Rate Range
Drainage/Drainage Systems:	
Storm drains, catch basins, retention, detention and seepage ponds.	1 pouch/50 sq.ft. (1)
Treatment Areas (For Use In)⁽¹⁾:	
Ponds	Standing water Unused swimming pools or spas
Lagoons	Storm water Flooded basements
Water gardens	retention areas
Hollow trees and tree holes	Catch basins Pool covers
Urns	Birdbaths Gutters and drains
Rain barrels	Fountains Wheelbarrows
Livestock watering troughs/ponds/tanks	Flowerpots and planters Garbage cans and covers
Irrigation ditches	Snowmelt pools Discarded tires
Roadside ditches	Abandoned swimming pools
Flood water	

Any location where water accumulates and remains standing for periods of time, except treated, finished drinking water for human consumption.

(1) Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoLex Soluble Pouch for up to 50 square feet of treatment area. Re-apply as needed after 1 to 4 weeks.

5.1 APPLICATION DIRECTIONS (cont'd)

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

* Mosquito species effectively controlled by VectoLex WSP, including many of those known to carry/transmit West Nile Virus:

- Culex* spp.
- Aedes vexans*
- Ochlerotatus melanimon* (*Aedes melanimon*)
- Ochlerotatus stimulans* (*Aedes stimulans*)
- Ochlerotatus nigromaculis* (*Aedes nigromaculis*)
- Psorophora columbiae*
- Psorophora ferox*
- Ochlerotatus triseriatus* (*Aedes triseriatus*)
- Ochlerotatus sollicitans* (*Aedes sollicitans*)
- Anopheles quadrimaculatus*
- Coquillettidia perturbans*

6.0 NOTICE TO USER

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoLex® FG Biological Larvicide**Synonyms:** VectoLex® CG, VectoLex® G, VectoLex® 7.5 GR, VectoLex® WSP, ABG-6185**EPA Reg No.:** 73049-20**Code Number:** None**List Number:** 05722**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Eye Irritation – Category 2B

2.2 Labeling Elements**Symbol(s)**

None

Signal Word

WARNING

Hazard Statement(s)

Causes eye irritation



VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus sphaericus</i> 2362, serotype H5a5b, strain ABTS 1743 fermentation solids	7.5
Trade Secret	Other ingredients	82.5

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**INHALATION:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a dry, cool place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear Goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Tan to Brown fine granules	Odor :	Characteristic odor
pH:	Not Determined	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	None of the components are classified as flammable or highly flammable, it can be concluded that the preparation itself will not be classified as highly flammable.
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD₅₀ > 5,000 mg/kgDERMAL TOXICITY: LD₅₀ > 2,000 mg/kgINHALATION TOXICITY: LC₅₀ > 0.09 mg/L highest attainable concentration

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: slightly-irritating

OCULAR IRRITATION: Eye irritant – Cat 2B

DERMAL SENSITIZATION: Skin sensitizer – Cat 1A

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)LC₅₀ >15.5 mg/L (96-H, Blue Gill)Bird: LC₅₀ >9g /kg (Acute Oral - Mallard)Invertebrates: EC₅₀ >15.5 (48-H) (Daphnia)

Bees: Essentially non-toxic to bees

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

**VectoLex® FG Biological Larvicide**

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-20

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.



VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in cool, dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

16. OTHER INFORMATION

NFPA Hazard Ratings

HMIS Hazard Ratings

Health: 1
Flammability: 0
Instability: 0

Health: 1
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/08/20

SUPERSEDES DATE: 09/12/18

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

**VectoLex® FG Biological Larvicide****SDS# VBC-0046 Revision 3****ISSUED 01/08/20**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020



ACTIVE INGREDIENTS:

<i>Bacillus sphaericus</i> 2362, Serotype H5a5b, Strain ABTS 1743 Fermentation Solids, Spores, and Insecticidal Toxins	2.7%
<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> Serotype H-14, Strain AM65-52 Fermentation Solids, Spores, and Insecticidal Toxins	4.5%
OTHER INGREDIENTS	92.8%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.
 Expiration Date: (Two years from date of manufacture)
 The percent active ingredient does not indicate product performance
 and potency measurements are not Federally standardized.

EPA Reg. No. 73049-429
 EPA Est. No. 33762-IA-001
 US Patent No. 7,989,180, US Patent No. 8,454,983

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Warranty and Disclaimer

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.</p>	

2.0

PRECAUTIONARY STATEMENTS

2.1

**Hazards To Humans and Domestic Animals
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2

Environmental Hazards

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

4.0

APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoMax® FG Biological Larvicide Fine Granule (hereafter referred to as VectoMax FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax FG can be applied to areas that contain fish, other aquatic life, and plants. VectoMax FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

I. For control of mosquito larvae in the following non-crop sites:

Habitat	Application Rate Range
Wastewater:	
Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, and impound wastewater associated with fruit and vegetable processing.	5-20 lbs/acre*
Storm Water/Drainage Systems:	
Drainage ditches, roadside ditches, retention ponds, detention ponds, and seepage ponds.	5-20 lbs/acre*
Marine/Coastal Areas:	
Tidal water, salt marshes, mangroves, and estuaries.	5-20 lbs/acre*
Water Bodies:	
Natural and manmade aquatic sites such as lakes, ponds, canals, rivers and streams (including river & stream edges), floodplains, swamps, marshes, irrigation ditches, flood water, woodland pools, snow melt pools and livestock watering ponds and troughs.	5-20 lbs/acre*
Waste Tires:	
Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For control of mosquito larvae in agricultural/crop sites where mosquito breeding occurs.

Habitat	Application Rate Range
Rice fields, pastures/hay fields, orchards (including citrus groves, peaches, almonds, dates, and walnuts), asparagus fields, corn fields, cotton fields, alfalfa fields, and vineyards.	5-20 lbs/acre*

Apply VectoMax FG uniformly by aerial or conventional ground equipment. Reapply VectoMax FG as needed (after 1-4 weeks under typical environmental conditions).

*Use higher application rates (10-20 lbs/acre) in areas where 4th instar *Aedes* or *Ochlerotatus* spp. larvae predominate, or in areas where very high densities of late instar mosquito larvae are present, or under conditions where local experience indicates the need for higher application rates to achieve extended residual control.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

5.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances. If burned, stay out of smoke.

6.0

WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage, or handling not in accordance with the accompanying directions.

VectoMax is a registered trademark and BioFuse is a trademark of Valent BioSciences Corporation.



SAFETY DATA SHEET

1 of 11

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoMax® FG**Synonyms:** VectoMax® G; VectoMax® WSP; VBC-60035**EPA Reg No.:** 73049-429**Code Number:** N/A**List Number:** 05750**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not Classified

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

None



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus sphaericus</i> 2362, strain ABTS-1743	2.7
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	4.5
Trade Secret	Other ingredients	92.8

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye irritation and skin sensitization

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Wear a dust/mist filtering respirator, eye protection and gloves.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Mosquito larvicide



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Yellow/Brown granular solid	Odor Threshold:	None discernible
pH:	≈ 5 (1% dispersion in water)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	32 +/- 3 lbs/cu ft.
Octanol/H ₂ O Coeff.:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	Non-flammable (per similar formulation)
Kinematic Viscosity:	Not Determined		

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA: 29 CFR § 1910.1200, (3/12/2012)]

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Inhalation: No

Ingestion: No

ACUTE EFFECTS: Product Toxicology StudiesORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 2,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 2.84 mg/L air (rat)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not-irritating, (EPA Tox Category IV)

OCULAR IRRITATION: Mildly-irritating, (EPA Tox Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.
CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic
SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Bti Technical Powder)**Fish: LC₅₀ >300 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: EC₅₀ >50 mg/L (48-H) (Daphnia)**(Data for a Concentrated Bsp Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >9000 mg /kg (Acute Oral – Mallard)Invertebrates: EC₅₀ >15.5 mg/L (48-H) (Daphnia)**12.2 Persistence and Degradability**

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS: There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

15.2 EPA Pesticide Regulations

EPA Registration Number 73049-429

EPA Pesticide Label signal word

CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers. This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

16. OTHER INFORMATION

NFPA Hazard Ratings

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

Health: 0
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change
APPROVAL DATE: 01/03/20
SUPERSEDES DATE: 02/28/18

LEGEND: N/A = Not Applicable
N/L = Not Listed
C = Ceiling

N/D = Not Determined
L = Listed
S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC
(TM) = Registered Trademark of Valent BioSciences LLC



SAFETY DATA SHEET

11 of 11

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020



FOR ORGANIC PRODUCTION

MADE WITH



ACTIVE INGREDIENTS:

<i>Bacillus sphaericus</i> 2362, Serotype H5a5b, Strain ABTS 1743 Fermentation Solids, Spores, and Insecticidal Toxins	2.7%
<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> Serotype H-14, Strain AM65-52 Fermentation Solids, Spores, and Insecticidal Toxins	4.5%
OTHER INGREDIENTS	92.8%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from date of manufacture)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-429 List No. 05750
 EPA Est. No. 33762-IA-001
 US Patent No. 7,989,180, US Patent No. 8,454,983

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazards to Humans and Domestic Animals
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Warranty and Disclaimer

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.</p>	

2.0

PRECAUTIONARY STATEMENTS

2.1

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin. Prolonged or frequent skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

2.2

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Once the foil bag containing VectoMax® WSP Biological Larvicide Fine Granule is opened, use pouches within one day.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

4.0 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoMax WSP Biological Larvicide Fine Granule (hereafter referred to as VectoMax WSP) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoMax WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

For control of mosquito larvae in the following sites:

Habitat	Application Rate
---------	------------------

Drainage/Drainage Systems¹:

Catch basins and storm drains.	1 water soluble pouch/for up to 50 sq ft
--------------------------------	--

Treatment Areas (For Use In)²:

Ponds	Retention, detention and seepage ponds	Abandoned swimming pools
Lagoons	Animal waste lagoons	Unused swimming pools or spas
Hollow trees and tree holes	Flood water	Flooded basements
Urns	Standing water	Pool covers
Rain barrels	Storm water	Gutters and drains
Livestock watering troughs/ponds/tanks	retention areas	Wheelbarrows
Irrigation ditches	Birdbaths	Garbage cans and covers
Roadside ditches	Fountains	Discarded tires
Water gardens	Flowerpots and planters	
Impounded wastewater associated with fruit and vegetable processing	Snowmelt pools	
	Septic tanks	

Any location where water accumulates and remains standing for periods of time, except treated, finished water reservoirs or drinking water receptacles when the water is intended for human consumption

¹ Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply VectoMax WSP as needed (after 6-8 weeks under typical environmental conditions).

² Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply VectoMax WSP as needed (after 1-4 weeks under typical environmental conditions).

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

5.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry.)

Container Handling: Offer foil pouch for recycling if available or dispose of empty pouch in the trash as long as the water soluble pouch is unbroken.

6.0 WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoMax is a registered trademark of Valent BioSciences Corporation.

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoMax® FG**Synonyms:** VectoMax® G; VectoMax® WSP; VBC-60035**EPA Reg No.:** 73049-429**Code Number:** N/A**List Number:** 05750**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC

1910 Innovation Way, Suite 100

Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS**Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not Classified

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

None



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus sphaericus</i> 2362, strain ABTS-1743	2.7
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	4.5
Trade Secret	Other ingredients	92.8

4. FIRST AID MEASURES**4.1 Description of First Aid Measures****GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye irritation and skin sensitization

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Wear a dust/mist filtering respirator, eye protection and gloves.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Mosquito larvicide



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Yellow/Brown granular solid	Odor Threshold:	None discernible
pH:	≈ 5 (1% dispersion in water)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	32 +/- 3 lbs/cu ft.
Octanol/H ₂ O Coeff.:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	Non-flammable (per similar formulation)
Kinematic Viscosity:	Not Determined		

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Inhalation: No

Ingestion: No

ACUTE EFFECTS: Product Toxicology StudiesORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 2,000 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > 2.84 mg/L air (rat)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not-irritating, (EPA Tox Category IV)

OCULAR IRRITATION: Mildly-irritating, (EPA Tox Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.
CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic
SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Bti Technical Powder)**Fish: LC₅₀ >300 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: EC₅₀ >50 mg/L (48-H) (Daphnia)**(Data for a Concentrated Bsp Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >9000 mg /kg (Acute Oral – Mallard)Invertebrates: EC₅₀ >15.5 mg/L (48-H) (Daphnia)**12.2 Persistence and Degradability**

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS: There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

15.2 EPA Pesticide Regulations

EPA Registration Number 73049-429

EPA Pesticide Label signal word

CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers. This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.



VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

16. OTHER INFORMATION

NFPA Hazard Ratings

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

Health: 0
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change
APPROVAL DATE: 01/03/20
SUPERSEDES DATE: 02/28/18

LEGEND: N/A = Not Applicable
N/L = Not Listed
C = Ceiling

N/D = Not Determined
L = Listed
S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC
(TM) = Registered Trademark of Valent BioSciences LLC



SAFETY DATA SHEET

11 of 11

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



1910 Innovation Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020

VectoPrime[®] FG

BIOLOGICAL LARVICIDE

FINE GRANULE



ACTIVE INGREDIENT:

<i>Bacillus thuringiensis</i> , subsp. <i>israelensis</i> , strain AM 65-52 fermentation solids, spores, and insecticidal toxins	6.07%
(S)-methoprene	0.10%
OTHER INGREDIENTS	93.83%
TOTAL	100.00%

Potency: 400 International Toxic Units (ITU) per mg or 0.182 billion ITU per pound

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-501

EPA Est. No. 33762-IA-001

List No. 05725

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans and Domestic Animals
 - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Notice to User

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards To Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

4.0 APPLICATION DIRECTIONS

VectoPrime[®] FG Biological Larvicide is an insecticide for use against mosquito larvae.

Mosquito Habitats	Application Rate Range*
-------------------	-------------------------

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	1.25 - 20.0 lbs/acre*
--	-----------------------

In addition, standing water containing mosquito larvae, in fields growing crops such as (but not limited to) alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Post-flood Applications

Use 1.25-4.0 lbs/acre against 1st-4th instar mosquito larvae. Use 4.0-10.0 lbs/acre when water is heavily polluted (e.g. sewage lagoons, animal waste lagoons), algae are abundant, and/or local experience suggests the need for higher rates. Re-treat as needed based on local conditions.

* Pre-flood Applications

VectoPrime FG can be applied prior to flooding of mosquito larval habitats. Use 10-20 lbs/acre when up to 7 days pre-flood capacity is needed. Use 20 lbs/acre when a 7-14 day pre-flood application is needed. Retreat as needed. Consult your local Valent BioSciences representative for further advice on pre-flood applications with VectoPrime FG.

CONTINUED

4.0 APPLICATION DIRECTIONS (Cont'd)

Apply uniformly by aerial or ground conventional equipment. Avoiding drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

5.0 STORAGE AND DISPOSAL

Do not contaminate potable water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances. If burned, stay out of smoke.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with the accompanying directions.

VectoPrime is a registered trademark of Valent BioSciences Corporation.

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** VectoPrime® FG Biological Larvicide Fine Granules**Synonyms:** VBC-60394**EPA Reg No.:** 73049-501**Code Number:** None**List Number:** 05725**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not classified.

2.2 Labeling Elements**Symbol(s)**

None required

Signal Word

WARNING

Hazard Statement(s)

None



VectoPrime® FG Biological Larvicide Fine Granules

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

2.3 Precautionary Statement:**Prevention**

Wash hands and face thoroughly after handling.
Avoid breathing dust.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical attention.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	6.07
65733-16-6	S-Methoprene	0.10
Trade Secret	Other ingredients	93.83

4. FIRST AID MEASURES**4.1 Description of First Aid Measures**

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Possible eye irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**Thermal decomposition products**

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Wear a dust/mist filtering respirator, eye protection and impervious gloves.

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Store in a cool, dry place

Incompatibilities

None Known

7.3 Specific End Use(s)

Mosquito larvicide

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown granular	Odor:	Very little odor
pH:	5.0 (1% w/v)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	Not Determined
Kinematic Viscosity:	Not Determined		

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Inhalation: No

Ingestion: No

ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD₅₀ > 5,000 mg/kg (rat)DERMAL TOXICITY: LD₅₀ > 5,050 mg/kg (rabbit)INHALATION TOXICITY: LC₅₀ > Unable to generate sufficient respirable particles

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not irritating, (Category IV)

OCULAR IRRITATION: Minimally irritating, (Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Bti Technical Powder)**Fish: LC₅₀ >300 mg/L (96-H, Rainbow Trout)Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: EC₅₀ >50 mg/L (48-H) (Daphnia)

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

(Data for a Concentrated S-Methoprene Technical Powder)Fish: LC₅₀ >4.26 mg/L (96-H, Zebra Fish); NOEC: 1.25 mg/LAlgae: EC₅₀ >2.264 mg/L (48-H)Invertebrates: EC₅₀ >0.22 mg/L (48-H) (Daphnia)**12.2 Persistence and Degradability**

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

**VectoPrime® FG Biological Larvicide Fine Granules**

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number 73049-501

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.



VectoPrime® FG Biological Larvicide Fine Granules

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

STORAGE AND DISPOSAL

Do not contaminate potable water, food, or feed by storage or disposal.

Storage: Store in cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container.

Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

16. OTHER INFORMATION

NFPA Hazard Ratings

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

Health: 0
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Address Change
APPROVAL DATE: 01/15/2020
SUPERSEDES DATE: 03/23/2018

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

**VectoPrime® FG Biological Larvicide Fine Granules****SDS# VBC-0054 Revision 3****ISSUED 01/15/2020**

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.



Zenivex® E4

RTU

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

- **FOR THE CONTROL OF ADULT MOSQUITOES, NON-BITING MIDGES, AND BLACK FLIES**
- **FOR USE AS A SPACE SPRAY BY AIR AND GROUND APPLICATION TO CONTROL ADULT MOSQUITOES**
- **APPROVED FOR USE OVER AGRICULTURAL CROPS (INCLUDING THOSE INTENDED FOR HUMAN CONSUMPTION), PASTURE AND RANGELAND**
- **READY TO USE WITHOUT DILUTION**
- **CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS**
- **CONTROLS NON-BITING MIDGES, NUISANCE AND BITING FLIES**
- **QUICK, PERMANENT KNOCKDOWN OF ADULT MOSQUITOES**

SPECIMEN LABEL

ACTIVE INGREDIENT:

Etofenprox (CAS #80844-07-1) 4%

OTHER INGREDIENTS*: 96%

Total: 100%

*Contains petroleum distillates

Contains 0.30 lbs etofenprox per gallon

EPA Reg. No. 2724-807

EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional Precautionary Statements,

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND
DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.

FIRST AID

If swallowed • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillate.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are

present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL/CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ AND FOLLOW ALL LABEL DIRECTIONS.** Before making the first application of the season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

GENERAL

ZENIVEX® E4 RTU is an effective insecticide used at low volumes to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use **Zenivex® E4 RTU** undiluted as UltraLow Volume (ULV) for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. **Zenivex® E4 RTU** may be applied over agricultural areas prior to or following harvest for the control of adult mosquitoes within or adjacent to these areas. Apply **Zenivex® E4 RTU** aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, and handheld sprayers for ground applications. **Zenivex® E4 RTU** will control mosquitoes and flies and can be used as part of a total integrated pest management program for controlling disease vectors. Apply **Zenivex® E4 RTU** at rates from 0.00175 to 0.0070 pounds of etofenprox per acre by ground ULV. Use this product undiluted only; do not mix with water. Apply when wind is ≥ 1 mph. Do not apply when wind speeds exceed 10 mph. A temperature inversion is preferable to keep the fog close to the ground and applications should be made when labeled insects are most active. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. More frequent

treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

GROUND APPLICATION

Use a vehicle-mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 ft. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 10-30 microns ($10\mu \leq D_{v0.5} \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v0.9} < 50\mu$). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

The appropriate application rate can be achieved by using the following table. Refer to the following chart for examples.

Application rate pound A.I. per acre	Flow rates		Vehicle Speed
	Undiluted		
	Oz/Acre	Oz/Minute	
0.00175	0.75	2.25	5
		4.50	10
		7.00	15
0.00350	1.5	4.50	5
		9.00	10
		13.50	15
0.00700	3.0	9.00	5
		18.00	10

Use the higher label rates when spraying areas where dense vegetation is present. Conduct applications when temperatures are between 50-95° F.

Backpack Sprayer ULV Application

Apply **Zenivex® E4 RTU** undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 10 to 30 micron range. Apply product to the area as evenly as possible. Apply at the rate of 0.00175 to 0.0070 pounds etofenprox per acre.

Urban ULV Mosquito Control Applications

For control of resting or flying adult mosquitoes, biting flies and non-biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited

buildings, apply **Zenivex® E4 RTU** using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply **Zenivex® E4 RTU** at rates up to but not exceeding 0.0070 pounds of etofenprox per acre.

Thermal Fogging Application

Apply using a truck, dolly mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.00175 to 0.0070 pounds etofenprox per acre. Direct fog to areas where mosquitoes and other pests are located. The volume median diameter (VMD) of droplets produced by thermal foggers is less than 60 microns ($D_{v0.5} < 60\mu$) and 90% of the spray is contained in droplets smaller than 100 microns ($D_{v0.9} < 100\mu$).

AERIAL APPLICATION

Apply **Zenivex® E4 RTU** aerially, undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 to 0.0070 pounds of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns ($D_{v0.5} < 60\mu$) and that 90% of the spray is contained in droplets smaller than 100 microns ($D_{v0.9} < 100\mu$). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Do not apply **Zenivex® E4 RTU** at altitudes below 100 feet. Apply at altitudes from 100-300 feet. Apply when wind speed on the ground is ≥ 1 mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS

Zenivex® E4 RTU may be applied over crops (including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place) or to areas, where drift over cropland could occur. **Zenivex® E4 RTU** can be applied to these areas by either ground or aerial application. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 4 applications per month to the same site but no more than two applications within a seven day interval. Do not apply more than 0.028 pounds of active

ingredient per month to the same site within a month. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year.

PESTICIDE STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Refillable 30 Gallon Drums, 120 Gallon Mini-Tote and 275 Gallon Tote: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration. To clean the container before final disposal, triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with mineral oil or other suitable oil diluents. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Non-refillable 2.5 gallon containers: Non-refillable container.** Triple rinse (or equivalent), promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain container for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full of with mineral oil or other suitable oil diluents and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available, or puncture and dispose of in a sanitary landfill, or by incineration.

To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

In case of an emergency or for product use information, call **1-800-248-7763**.

www.zenivex.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173





Safety Data Sheet

Section 1: Identification

Product identifier

Product Name

- **Zenivex E4 RTU**

Synonyms

- 100503070; 100503072; 100503073; 100511618; EPA Reg. No.: 2724-807; RF 2146 RTU

Product Description

- Clear to pale yellow liquid.

Relevant identified uses of the substance or mixture and uses advised against**Recommended use**

- Insecticide.

Restrictions on use

- Avoid contact with eyes, skin or clothing. Avoid release to the environment. Avoid inhalation of vapors or fumes. KEEP OUT OF THE REACH OF CHILDREN.

Details of the supplier of the safety data sheet**Manufacturer**

- Wellmark International
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States

Emergency telephone number

- Manufacturer (Transportation)**
- 1-800-424-9300 - CHEMTREC

- Manufacturer (Transportation)**
- 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

- Manufacturer**
- 1-888-914-2082

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012**
- Eye Mild Irritation 2B

Label elements**OSHA HCS 2012****WARNING**

- Hazard statements**
- Causes eye irritation

Precautionary statements

- Prevention**
- Wash thoroughly after handling.

- Response**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
-
- If eye irritation persists: Get medical advice/attention.

Other hazards**OSHA HCS 2012**

- This product is toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients**Substances**

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
Etofenprox	CAS:80844-07-1	4%
Isopropyl myristate	CAS:110-27-0	35%
Other ingredients	NDA	61%

Section 4: First-Aid Measures**Description of first aid measures****Inhalation**

- IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor for further treatment advice.

Skin

- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

- IF SWALLOWED: call a poison center or doctor if you feel unwell. Rinse mouth. Have person drink pint of lukewarm water if able to swallow. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

- Causes eye irritation. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

- Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures**Extinguishing media**

Suitable Extinguishing Media • Use water, foam, carbon dioxide, or dry chemical.

Unsuitable Extinguishing Media

- Avoid heavy hose streams.

Firefighting Procedures

- Keep unauthorized personnel away.
LARGE FIRES: Dike fire control water for later disposal; do not scatter the material. Stay upwind.
Ventilate closed spaces before entering.

Special hazards arising from the substance or mixture**Unusual Fire and Explosion Hazards**

- None known.

Hazardous Combustion Products

- No data available.

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures**Personal precautions, protective equipment and emergency procedures****Personal Precautions**

- Avoid contact with skin, eyes, and clothing. Remove clothing and wash thoroughly after use. Use appropriate Personal Protective Equipment (PPE). Do not walk through spilled material. Ensure adequate ventilation to remove vapors, fumes, dust etc.

Emergency Procedures

- Use normal clean up procedures.

Environmental precautions

- Contain and prevent from release into any waterway, sewer or drain.

Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- LARGE SPILLS: Dike far ahead of spill for later disposal.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Section 7 - Handling and Storage**Precautions for safe handling****Handling**

- Wash hands thoroughly with soap and water after handling. Read label before use. Avoid contact with skin or eyes.

Conditions for safe storage, including any incompatibilities**Storage**

- Keep from freezing. Keep only in the original container.

Incompatible Materials or Ignition Sources

- No data available.

Other Information

- See product label for additional information.

Section 8 - Exposure Controls/Personal Protection**Control parameters****Exposure Limits/Guidelines**

- No data available.

Exposure controls**Engineering Measures/Controls**

- Use adequate ventilation to remove vapors (fumes, dust etc)

Personal Protective Equipment

Pictograms**Respiratory**

- In case of insufficient ventilation, use NIOSH approved respiratory protection.

Eye/Face

- Wear safety glasses.

Hands

- Wear appropriate gloves.

Skin/Body

- If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

General Industrial Hygiene Considerations

- Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear to pale yellow liquid.
Color	Clear to pale yellow.	Odor	Mild
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	0.89 @ 20°C / 7.4 lb./gal	Bulk Density	No data available
Water Solubility	Insoluble	Viscosity	< 100 Centipoise (cPs, cP) or mPas @ 20 C(68 F)
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	217°F (103°C)	UEL	No data available
LEL	No data available	Flame Duration	No data available
Flammability (solid, gas)	Not Flammable.		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Extreme temperatures. Keep away from fire.

Incompatible materials

- Strong oxidizing agents.

Hazardous decomposition products

- Thermal decomposition may produce toxic gases.

Section 11 - Toxicological Information

Information on toxicological effects

	CAS	
Zenivex E4 RTU	NDA	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >2.05 mg/L; Skin-Rat LD50 • >5000 mg/kg; Irritation: Eye-Rabbit • Mild irritation; Skin-Rabbit • Mild irritation

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Mild Irritation 2B

Route(s) of entry/exposure • Inhalation, Ingestion, Eyes, and Skin

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause respiratory irritation.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • May cause mild irritation.
- Chronic (Delayed)** • Repeated exposure to etofenprox can cause skin irritation.

Eye

- Acute (Immediate)** • May cause irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Section 12 - Ecological Information

Toxicity

Component	CAS	Data
Etofenprox (4%)	80844-07-1	Crustacea: 96 Hour(s) LC50 Crustacea <i>Mysid shrimp</i> 0.0000188 mg/L ; 48 Hour(s) LC50 Water Flea <i>Daphnia magna</i> 0.0008 mg/L ; NOEC Water Flea <i>Daphnia magna</i> 0.00017 mg/L ; Fish: 96 Hour(s) LC50 Fish <i>Sheepshead minnow</i> >0.0165 mg/L ; 96 Hour(s) LC50 Fish <i>Rainbow Trout</i> 0.0027 mg/L

Persistence and degradability

- No data available.

Bioaccumulative potential

- No data available.

Mobility in Soil

- No data available.

Other adverse effects

- No studies have been found.

Potential Environmental Effects

- This product is toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment. Care should be taken to avoid contamination of the environment.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3082	Environmentally hazardous substance, liquid, n.o.s (Etofenprox)	9	III	N/A
IMO/IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s (Etofenprox)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Environmentally hazardous substance, liquid, n.o.s (Etofenprox)	9	III	Acute Aquatic Toxicity

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Other information

IMO/IMDG • No data available

IATA/ICAO • No data available

Key to abbreviations

= N/A = Not applicable.

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Hazard Classifications** • Acute**FIFRA – Pesticide Labeling**

This material is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION**Precautionary Statements** • Keep out of reach of children.

Hazards to Humans and Domestic Animals • **HAZARDS TO HUMANS & DOMESTIC ANIMALS - CAUTION** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.

First Aid • If swallowed • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person. If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. • Call a poison control center or doctor for treatment advice. Note to Physician: May pose an aspiration pneumonia hazard. Contains petroleum distillate.

Environmental Hazards • **ENVIRONMENTAL HAZARDS** This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Inventory		
Component	CAS	TSCA
Etofenprox	80844-07-1	No
Isopropyl myristate	110-27-0	Yes

Section 16 - Other Information

-
- | | |
|--|--|
| Last Revision Date | <ul style="list-style-type: none">● 17/June/2015 |
| Preparation Date | <ul style="list-style-type: none">● 17/June/2015 |
| Disclaimer/Statement of Liability | <ul style="list-style-type: none">● The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. |
-