

# MATERIAL SAFETY DATA SHEET

Emergency Phone: 800-992-5994

## PRODUCT: NATULAR™ 2EC

Effective Date: 3/18/2009  
US EPA Registration No.: 8329-82  
Development Code: GF-1592

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT: NATULAR™ 2EC

#### COMPANY IDENTIFICATION:

Clarke Mosquito Control Products, Inc.  
159 North Garden Avenue  
Roselle, IL 60172  
U.S.A.

1-800-323-5727

### 2. INFORMATION ON INGREDIENTS:

Spinosad: Factor A CAS# 131929-60-7  
Factor D CAS# 131929-63-0 20.62%

Other Ingredients\*, proprietary 79.38%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). 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.

### 3. HAZARDS IDENTIFICATION:

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYE:** May cause transient (temporary) eye irritation. Vapors from product may be irritating to mucous membranes, including the eyes.

**SKIN:** Short term exposure may cause temporary irritation. Can be absorbed through the skin. The LD50 for skin absorption in rats is >5000 mg/kg. A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts. Did not cause allergic skin irritation or reactions when tested in guinea pigs.

**INGESTION:** Harmful if swallowed. The oral LD50 for rats is 2,000 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Symptoms of poisoning include nausea, vomiting, acidosis, pulmonary edema, pneumonia, and convulsions.

**INHALATION:** Short term exposure may result in respiratory tract irritation. The inhalation LC50 for the formulation is greater than 2.01 mg/L. Acute exposure to concentrate mist is not likely to cause adverse effects.

**CANCER INFORMATION:** Spinosad did not cause cancer in laboratory animals.

**REPRODUCTIVE EFFECTS:** Spinosad effects on reproduction, in laboratory animal studies, have been seen only at doses that produced significant toxicity to the parent animals.

### 4. FIRST AID:

**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.

**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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** 99° C (210.2 °F)  
**METHOD USED:** Closed cup (ASTM D93)

#### FLAMMABLE LIMITS:

LFL: Not established  
UFL: Not established

**FIRE AND EXPLOSION HAZARDS:** Material is not pyrophoric.

**EXTINGUISHING MEDIA:** Regular dry chemical, carbon dioxide, water, regular foam. Large fires: Use regular foam or flood with fine water spray.

**FIRE-FIGHTING PRECAUTIONS:** 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.

**FIRE AND EXPLOSION HAZARDS:** Keep people away. Isolate fire area and deny unnecessary entry. Under fire conditions some components may decompose. Combustion products may include CO and NOx typical of wood smoke.

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### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS/LEAKS:** Stop leak if possible without personal risk. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry.

### 7. HANDLING AND STORAGE:

**HANDLING:** Keep out of reach of children. Avoid eye contact. Do not take internally. Wash thoroughly after handling and before eating, drinking, or smoking. Store product in original container. See product label for additional instructions.

**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 feed, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

**EXPOSURE GUIDELINES:** Spinosad: Dow AgroSciences Industrial Hygiene Guide is 0.3 mg/M<sup>3</sup>, TWA.

**OSHA PEL/STEL:** Not established.

**ENGINEERING CONTROLS:** Good general ventilation should be sufficient for most conditions.

### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

**EYE/FACE PROTECTION:** Use of protective eyewear is recommended.

**CLOTHING:** No precautions other than clean body-covering clothing and chemical resistant gloves should be needed. See product label for additional instructions.

**APPLICATORS AND ALL OTHER HANDLERS:** Wear protective eyewear.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE:** light tan to golden liquid, oily  
**ODOR:** characteristic of wintergreen (mint)  
**DENSITY:** 1.16 g/ml  
**VAPOR PRESSURE:** 1 mmHg @ 20 C  
**VAPOR DENSITY (air=1):** 5  
**SOLUBILITY IN WATER:** slightly soluble  
**pH:** 7.71  
**VISCOSITY:** 17.32 (20C), 8.59 (40C)

### 10. STABILITY AND REACTIVITY:

**STABILITY (CONDITIONS TO AVOID):** Thermally stable at typical use and storage temperatures and pressure. Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID):** Reactive with oxidizing agents, acids, alkalis.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition products: forms carbon monoxide and/or dioxide upon burning.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

### 11. TOXICOLOGICAL INFORMATION:

**MUTAGENICITY:** For spinosad, in-vitro and animal mutagenicity studies were negative.

**TOXICITY DATA:**  
> 5000 mg/kg oral rat LD50  
~ 2000 mg/kg dermal rat LD50  
> 2.01 mg/L inhalation rat LC50

**LOCAL EFFECTS:** Mild irritant: inhalation, skin, eye  
**ACUTE TOXICITY LEVEL:** Slightly toxic, ingestion

Additional information provided in Section 3.

### 12. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** 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.

Follow product label instructions for container disposal.

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## 14. TRANSPORT INFORMATION:

This product is not regulated by DOT when shipped domestically by land.

## 15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express 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 or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

### U.S. REGULATIONS

**SARA 313 INFORMATION:** This product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

**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:

Immediate (acute) hazard

**STATE RIGHT-TO-KNOW:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

None

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):** This product contains no chemical subject to reporting under CERCLA.

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

The information herein is given in good faith, but no warranty, express or implied, is made. Consult Clarke Mosquito Control Products, Inc. for further information.