

# MATERIAL SAFETY DATA SHEET



For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call: 1-877-325-1840

Voluntary Purchasing Groups, Inc.  
230 FM 87  
Bonham, Texas 75418

## Natural Guard® Spinosad

Effective Date: December 12, 2008

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Natural Guard Spinosad  
**EPA No.:** 62719-314-7401

#### COMPANY IDENTIFICATION:

Voluntary Purchasing Groups, Inc.  
230 FM 87  
Bonham, Texas 75418

### 2. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

Off-White to tan liquid suspension with low odor. May cause slight eye irritation. Material is slightly toxic to aquatic organisms.

**EMERGENCY PHONE NUMBER: 800-424-9300**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CAS NUMBER	W/W%
Spinosad: Spinosyn A	131929-60-7	0.5%
Spinosyn D	131929-63-0	2.0
Balance, Total, Including: Propylene glycol (1,2-Propanediol)	000057-55-6	99.5%

### 4. FIRST AID:

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

**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.

**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. Never give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air. If person is not breathing, call 911 or ambulance, and then give artificial respiration, preferably by mouth to mouth. Call a poison control center or doctor for further treatment advice.

**NOTE TO PHYSICIAN:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** Not determined (aqueous suspension)

**METHOD USED:** Not applicable

#### FLAMMABLE LIMITS:

LFL: Not determined (water-based product)

UFL: Not determined (water-based product)

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**EXTINGUISHING MEDIA:** To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

**FIRE AND EXPLOSION HAZARDS:** Keep people away. Isolate fire and deny unnecessary entry. Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds.

**FIRE-FIGHTING EQUIPMENT:** Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS:** Use non-reactive absorbent to absorb small spills and collect for disposal. Report large spills to CHEMTREC 800-424-9300

### 7. HANDLING AND STORAGE:

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** 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.

### 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:** Propylene glycol: AIHA WEEL is 10 mg/ M<sup>3</sup> for total vapor and aerosol.  
Spinosad: Voluntary Purchasing Groups Industrial Hygiene Guide is 0.3 mg/ M<sup>3</sup>, TWA.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

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

**EYE/FACE PROTECTION:** Use of safety glasses is recommended

**SKIN PROTECTION:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guideline.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE:** Off-white to light tan

**ODOR:** Low odor

**BOILING POINT:** 100°C C (212F) water

**PHYSICAL STATE:** Liquid suspension

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**VAPOR PRESSURE:** similar to water  
**SOLUBILITY IN WATER:** Dispersible  
**DENSITY:** 1.09 g/ml

### 10. STABILITY AND REACTIVITY:

**STABILITY:** (CONDITIONS TO AVOID) Thermally stable at typical use temperatures. Some components of this product can decompose at elevated temperatures.

**INCOMPATIBILITY:** (SPECIFIC MATERIALS TO AVOID) None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products depend upon temperature, air supply and the presence of other materials.

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

### 11. TOXICOLOGICAL INFORMATION:

**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 slight eye irritation. Corneal injury is unlikely. May cause pain disproportionate to the level of irritation to eye tissues.

**SKIN:** Prolonged contact may cause slight skin irritation with local redness. The LD<sub>50</sub> for skin absorption in rabbits is >5,000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Did not cause allergic skin irritation or reactions when tested in guinea pigs.

**INGESTION:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. The oral LD<sub>50</sub> for rats is >5,000 mg/kg.

**INHALATION:** No adverse effects are anticipated for single exposure to mist. The aerosol LC<sub>50</sub> for rats is >.50 mg/L for 4 hours (limit test).

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** Repeated exposure did not produce systemic toxicity when applied to the skin of rabbits.

**CANCER INFORMATION:** Did not cause cancer in laboratory animals.

**TERATOLOGY (BIRTH DEFECTS):** Spinosad did not cause birth defects in laboratory animals.

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

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

### 12. ECOLOGICAL INFORMATION:

#### ENVIRONMENTAL FATE::

#### MOVEMENT & PARTITIONING:

Based largely or completely on information for spinosad.

Bioconcentration potential is low (BCF >100 or Log Pow >3). Based on information for spinosyn A.

Bioconcentration factor (BCF) in fish is 33.

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### DEGRADATION AND PERSISTENCE:

Based largely or completely on information for spinosad.

Based on information for spinosyn A.

The photolysis half-life in pH7 buffer is 0.96 days.

Under aerobic soil conditions the half-life is 9.4 and 17.3 days.

Based on information for spinosyn D.

The photolysis half-life in soil is 9.44 days.

The photolysis half-life in pH7 buffer is 0.84 days.

### ECOTOXICOLOGY:

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in most sensitive species.

Acute immobilization EC50 in water flea (*Daphnia magna*) is 16.9 mg/L.

Acute LC50 in water flea (*Daphnia magna*) is >90.9 mg/L.

Acute LC50 in zebra fish (*Brachydanio rerio*) is >120 mg/L.

Acute LC50 in common carp (*Cyprinus carpio*) is >100mg/L.

The LC50 in earthworm (*Eisenia foetida*) is >2000 mg/kg.

Growth inhibition EC50 in diatom (*Navicula sp.*) is 0.667 mg/L.

Growth inhibition EC50 in green alga (*Selenastrum capricornutum*) is >100 mg/L.

Acute contact LC50 in honeybee (*Apis mellifera*) is 0.12 ug/bee.

Acute oral LD50 in honeybee (*Apis mellifera*) is .011 ug/bee.

### 13 DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristics(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION:

#### U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For all package sizes and modes of transportation:

This material is not regulated for transport.

### 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:** To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

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**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:

An immediate health hazard

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**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.

<u>CHEMICAL NAME</u>	<u>CASE NUMBER</u>	<u>LIST</u>
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1,2-Propanediol	000057-55-6	PA1
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PA1=Pennsylvania Hazardous Substance (present at >or = to 1.0%).

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

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, OR SUPERFUND):** To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.