

# MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994  
Dow AgroSciences LLC  
Indianapolis, IN 46268

## SUCCESS\* NATURALYTE\* INSECT CONTROL

Effective Date: 5/19/99  
Product Code: 52891  
MSDS: 005579

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Success\* Naturalyte\* Insect Control

#### COMPANY IDENTIFICATION:

Dow AgroSciences  
9330 Zionsville Road  
Indianapolis, IN 46268-1189

### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

Spinosad: Spinosyn A	CAS # 131929-60-7	22.8%
Spinosyn D	CAS # 131929-63-0	
Inert Ingredients, total, including:		77.2%
Propylene glycol: (1,2-Propanediol)	CAS # 000057-55-6	

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. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

Off-white to tan liquid suspension with low odor. May cause slight eye irritation. The LD<sub>50</sub> for skin absorption in rabbits is >5000 mg/kg. The oral LD<sub>50</sub> for rats is >5000 mg/kg. Product is highly toxic to marine mollusks, moderately to slightly toxic to fish, slightly toxic to aquatic invertebrates, and practically non-toxic to birds.

**EMERGENCY PHONE NUMBER:** 800-992-5994

**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.

**SKIN:** The LD<sub>50</sub> for skin absorption in rabbits is >5000 mg/kg. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Prolonged exposure is not likely to cause significant skin irritation. Did not cause allergic skin irritation or reactions when tested in guinea pigs.

**INGESTION:** Single dose oral toxicity is extremely low. The oral LD<sub>50</sub> for rats and mice is >5000 mg/kg. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

**INHALATION:** Single exposure to mist is not likely to cause adverse effects.

**SYSTEMIC (OTHER TARGET ORGANS) EFFECTS:** In animals, has been shown to cause vacuolation of cells in various tissues and changes in blood and serum biochemistry. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

**CANCER INFORMATION:** No relevant information found.

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

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

### 4. FIRST AID:

**EYE:** Flush eyes with plenty of water.

**SKIN:** Wash off in flowing water or shower.

**INGESTION:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**INHALATION:** Remove to fresh air if effects occur. Consult a physician.

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

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### 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)

**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 area 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/LEAKS:** Use non-reactive absorbent to absorb small spills and collect for disposal. Report large spills to Dow AgroSciences on 800-992-5994.

### 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 a potential for exposure exists. Emergency conditions may require additional precautions.

**EXPOSURE GUIDELINES:**

Propylene glycol: AIHA WEEL is 50 ppm total, 10 mg/M<sup>3</sup> aerosol only.  
DE 105 (Spinosad): Dow AgroSciences Industrial Hygiene Guide is 0.3 mg/M<sup>3</sup>, TWA.

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

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

**RESPIRATORY PROTECTION:** No respiratory protection should be needed.

**SKIN PROTECTION:** No precautions other than clean body-covering clothing should be needed.

**EYE/FACE PROTECTION:** Use safety glasses.

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

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

**PHYSICAL STATE:** Liquid suspension

**ODOR:** Low odor

**DENSITY:** 1.05 TO 1.06 gm/mL

**SOLUBILITY IN WATER:** Dispersible

**VAPOR PRESSURE:** Similar to water

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

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### 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:

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

### 12. ECOLOGICAL INFORMATION:

#### ENVIRONMENTAL FATE:

#### MOVEMENT & PARTITIONING:

Based largely or completely on data for major component. Bioconcentration potential is low (BCF <100 or Log Pow <3).

Based on information for propylene glycol.

Potential for mobility in soil is very high (Koc between 0 and 50).

Based on information for Spinosad.

Potential for mobility in soil is low (Koc between 500 and 2000).

#### DEGRADATION AND PERSISTENCE:

Based on information for Spinosad.

Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Based on information for propylene glycol.

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD <40%).

### ECOTOXICOLOGY:

Based on information for Spinosad.

Material is highly toxic to aquatic organisms on an acute basis (LC<sub>50</sub>/EC<sub>50</sub> between 0.1 and 1 mg/L in most sensitive species).

Material is practically non-toxic to birds on an acute basis (LD<sub>50</sub> >2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC<sub>50</sub> >5000 ppm).

Based on information for propylene glycol.

Material is practically non-toxic to aquatic organisms on an acute basis (LC<sub>50</sub>/EC<sub>50</sub> >100 mg/L in most sensitive species).

### 13. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** Improper disposal of excess product, spray mixture, or rinsate is a violation of the Federal law. If these wastes cannot be disposed 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.

### 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:** 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

**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.

CHEMICAL NAME	CAS NUMBER	LIST
1,2-PROPANEDIOL	000057-55-6	PA1

PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).

**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.

### 16. OTHER INFORMATION:

**MSDS STATUS:** Changed company name and telephone number  
Revised sections: 3, 6, 8, 11, 12, 15  
Reference: DR-0354-5048  
Replaces MSDS dated: 6/10/97  
Document Code: D03-065-001  
Replaces Document Code: D03-052-891

The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult Dow AgroSciences For Further Information.