

MATERIAL SAFETY DATA SHEET



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

SpinTor* 2SC NATURALYTE* INSECT CONTROL

Effective Date: 8-5-04
Product Code: 54404
MSDS: 005579

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: SpinTor* 2SC Naturalyte* Insect Control

COMPANY IDENTIFICATION:

Dow AgroSciences LLC
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	
Balance, total, including:		77.2%
Propylene glycol (1,2-Propanediol)	CAS # 000057-55-6	

3. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Off-white to tan liquid suspension with low odor. May cause slight eye irritation. Toxic to marine mollusks, fish, and aquatic invertebrates.

EMERGENCY PHONE NUMBER: 800-992-5994

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)

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.

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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 10 mg/M³ for total vapor and aerosol.

DE 105 (Spinosad): Dow AgroSciences Industrial Hygiene Guide is 0.3 mg/M³, 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:

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

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

EYE/FACE PROTECTION: Use safety glasses.

APPLICATORS AND ALL OTHER HANDLERS: 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

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 LD₅₀ for skin absorption in rabbits is >5000 mg/kg. Prolonged contact is unlikely to result in absorption of harmful amounts. Did not cause allergic skin reactions when tested in guinea pigs.

INGESTION: Very low toxicity if swallowed. The oral LD₅₀ for rats and mice is >5000 mg/kg. Harmful effects not anticipated from swallowing small amounts.

INHALATION: No adverse effects are anticipated from single exposure to mist. The aerosol LC₅₀ for rats is >5.0 mg/L for 4 hours (limit test).

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

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

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

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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 genetic toxicity 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 largely or completely on information for propylene glycol.

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

Based largely or completely on information for Spinosad.

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

DEGRADATION AND PERSISTENCE:

Based largely or completely on information for Spinosad.

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

Based largely or completely on information for propylene glycol.

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

ECOTOXICOLOGY:

Based largely or completely on information for Spinosad.

Material is highly toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ between 0.1 and 1 mg/L in most sensitive species).

Material is practically non-toxic to birds on an acute basis (LD₅₀ >2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC₅₀ >5000 ppm).

Based largely or completely on information for propylene glycol.

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ >100 mg/L in most sensitive species).

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 characteristic(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:

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

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.

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

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.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	1
Flammability	0
Reactivity	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: Revised sections: 3, 8, 11 & 13
Reference: DR-0354-5048
Replaces MSDS dated: 7/27/01
Document Code: D03-064-230
Replaces Document Code: D03-064-229

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