

Material Safety Data Sheet  
May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be consulted  
for specific requirements.

U.S Department of Labor  
Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

IDENTITY (As Used on Label and List)

**Bonide Eight Insect Control Flower & Vegetable  
Above & Below Soil Insect Granules**

**ID No. 538831944**

Date: September 1, 2010

**Section I**

Bonide Products, Inc. (800) 424-9300  
6301 Sutliff Rd. (315) 736-8231  
Oriskany, NY 13424

**Section II - Hazardous Ingredients/Identity**

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Bifenthrin CAS #82657-04-3 *Pyrethroid Pesticide family		None		0.115%

**Section III - Physical/Chemical Characteristics**

**PHYSICAL FORM:** Solid **COLOR:** Grayish - tan solid granule  
**ODOR:** Slightly musty **BULK DENSITY:** 45 – 80 lb/cu ft.  
**MOLECULAR WEIGHT:** 422.88 (bifenthrin)

**Section IV - Health Hazard Information**

**ROUTES OF ENTRY:** Inhalation, Eyes, Skin, Ingestion.

**EYES:** Excessive exposure to dust may irritate the eyes. Overexposure may cause diarrhea.

**INHALATION:** Excessive exposure to dust may irritate the respiratory system.

**SKIN:** Excessive exposure to dust may irritate the skin. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours. Overexposure to this product may cause diarrhea.

**INGESTION:** May cause discomfort, diarrhea.

**MEDICAL CONDITIONS AGGRAVATED:** None presently known.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

**CARCINOGENICITY:** IARC: Not listed, NTP: Not listed, OSHA: Not listed

**OTHER:** Not Listed (ACGIH)

**Section V – First Aid**

**EYES:** Flush with plenty of water. Get medical attention if irritation occurs and persists.

**SKIN:** Wash thoroughly with plenty of soap and water.

**INGESTION:** Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

**INHALATION:** Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

**NOTES TO MEDICAL DOCTOR:** This product has low oral and dermal toxicity, and is non-irritating to the eyes and skin. This product contains a granular material (sand) that may cause mechanical irritation to the eyes. Reversible skin sensations (paresthesia) may occur and

ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

## **Section VI - HANDLING AND STORAGE**

---

**GENERAL PROCEDURES:** Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

### **PERSONAL PROTECTIVE EQUIPMENT:**

**EYES AND FACE:** For dust exposure, wear chemical protective goggles, face shield or safety glasses. **RESPIRATORY:** For dust exposure wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator, which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations. **GLOVES:** Wear chemical protective gloves made of materials such as rubber or neoprene. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks. **PROTECTIVE CLOTHING:** Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC suit. Leather items - such as shoes, belts and watchbands - that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

**WORK HYGIENIC PRACTICES:** Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or using tobacco. Shower at the end of the workday.

**ENGINEERING CONTROLS:** Use local exhaust at all process locations where dust may be emitted. Ventilate all transport vehicles prior to unloading.

## **Section VII – Fire/Explosion Data**

---

**FLASH POINT:** N/A

**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub> or dry chemical. Soft stream water fog only if necessary. Contain all runoff.

**FIRE / EXPLOSION HAZARDS:** Slightly combustible. This material may support combustion at elevated temperatures.

**FIRE FIGHTING PROCEDURES:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

**RELEASE NOTES:** Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section VII- Handling & Storage. Keep unprotected persons and animals out of the area. Highly toxic to fish and aquatic organisms. Keep out of drains and watercourses. Keep material out of lakes, streams, ponds and sewer drains. Large spills should be covered to prevent dispersal. For dry material, use a wet sweeping compound or water to prevent the formation of dust. If water is used, prevent runoff or dispersion of excess liquid by diking and absorbing with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump all waste material, including absorbent, into a drum and label contents for disposal.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e., methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to

Bonide Eight Insect Control Flower & Vegetable Above & Below Soil Insect Granules ID # 538831944 3 of 3  
the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section XI - Disposal Information.

### Section VIII - Reactivity Data

---

**CONDITIONS TO AVOID:** Excessive heat and fire.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen flouride.

**STABILITY:** Stable

**POLYMERIZATION:** Will not occur

### Section IX - Toxicological Information

---

**DERMAL LD<sub>50</sub>:** >2000 mg/kg (rabbit)

**ORAL LD<sub>50</sub>:** >5000 mg/kg (rat)

**ACUTE EFFECTS FROM OVEREXPOSURE:** This product caused diarrhea in laboratory animals. Bifenthrin does not cause acute delayed neurotoxicity.

### Section X - ECOLOGICAL INFORMATION

---

Unless otherwise indicated, the data presented below are for the active ingredient.

**ENVIRONMENTAL DATA:** In soil, bifenthrin is stable over a wide pH range and degrades at a slow rate which is governed by soil characteristics. Bifenthrin will also persist in aquatic sediments. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF = 11, 750).

**ECOTOXICOLOGICAL INFORMATION:** Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 µg/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on mollusks at its limit of water solubility. Bifenthrin is only slightly toxic to both water fowl and upland game birds (LD50 values range from 1,800 mg/kg to >2,150 mg/kg).

### Section XI - Disposal Information

---

**DISPOSAL METHOD:** Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal. **EMPTY CONTAINER:** Completely empty package into application equipment then dispose of empty package in accordance with all Federal, State and local regulations.

### Section XII - Transport Information

---

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

**REPORTABLE QUANTITY (RQ):** None

**U.S. SURFACE FREIGHT CLASS:** Insecticides, NOI, other than Poison. NMFC Item 102120.

**MARINE POLLUTANT #1:** bifenthrin (Severe Marine Pollutant - see 'Other Shipping Information' below)

#### OTHER SHIPPING INFORMATION:

Bifenthrin is a severe marine pollutant, but is not regulated in concentrations less than 1%. This material is not regulated for transport via any mode.

**Section XIII - Regulatory Information**

---

**UNITED STATES - SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):** Not listed

**SECTION 311 HAZARD CATEGORIES (40 CFR 370):** Immediate, Delayed

**SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):** The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs. This product contains the following ingredients with a TPQ of less than 10,000 lbs.: None

**SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):** There are no ingredients in this product which are subject to Section 313 reporting requirements.

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT) CERCLA RQ: Not listed**

**STATE REGULATIONS**

**PROPOSITION 65 STATEMENT:** There are no ingredients in this product which are subject to the reporting requirements of California Proposition 65.

**COMMENTS:** U.S. EPA Signal Word: CAUTION

**KEEP OUT OF REACH OF CHILDREN**

**ABBREVIATION KEY**

---

N/A: NOT AVAILABLE OR APPLICABLE	N/E: NOT ESTABLISHED	ND: Not Determined
TLV: THRESHOLD LIMIT VALUE	TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY	
STEL: SHORT TERM EXPOSURE LIMIT	D.O.T.: DEPARTMENT OF TRANSPORTATION	

**DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.