Bifenthrin .1G HDG

LEBANON BIFENTHRIN 0.1% INSECT CONTROL
Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
Date Approved: 03/22/10 rev.

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This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 910.1200; the EC directive, 91/155/EEC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise noted.

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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ACTIVE INGREDIENT: Bifenthrin
CHEMICAL FAMILY: Pyrethroid Pesticide
MOLECULAR FORMULA: C23H22CIF3O2 (bifenthrin)
SYNONYMS: FMC 54800; (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate;IUPAC:2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate
MANUFACTURER
LEBANON SEABOARD CORPORATION
1600 E. Cumberland Street
Lebanon, PA 17042
General Information: 800-532-0090
Emergency Telephone Numbers:
HEALTH EMERGENCY: PROSAR (888) 208-1368
ENVIRONMENTAL EMERGENCY: CHEMTREC 800-424-9300
(202) 483-7616 (All other countries)

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

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| CHEMICAL NAME | CAS # | WT.% | PEL/TLV |
|---|---|---|---|
| Bifenthrin<br>EC NO: None<br>EC CLASS: None | 82657-04-3 | 0.100 | None |
| Pelleted Limestone<br>EC NO: None<br>EC CLASS: None | 1317-65-3 | 99.900 | 15mg/m3 (total dust)<br>(supplier) 5 mg/m3<br>(resp fraction)<br>10 mg/m3 (total dust)<br>(supplier) 3 mg/m3<br>(resp fraction) |

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## 3. HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

- Dark-beige, granular-like with an earthy fertilizer-like odor.
- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.

NFPA RATING

Health- 1  Flammability- 1  Reactivity- 0  Others- None

0=minimal hazard  1=slight hazard  2=sever hazard  3=sever hazard
4=extreme hazard

POTENTIAL HEALTH EFFECTS: Effects from overexposure result from either swallowing, or coming into contact with the skin or eyes. 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.

MEDICAL CONDITIONS AGGRAVATED: None presently known.

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## 4. FIRST AID MEASURES

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EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Drink plenty 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 is expected to have low oral, dermal and inhalation toxicity. It is expected to be mildly irritating to the skin and 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.

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## 5. FIRE FIGHTING MEASURES

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EXTINGUISHING MEDIA: Foam, $CO_2$ 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.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride. If heated to decomposition, may give off ammonia and formaldehyde, as well as oxides of sulfur, manganese, magnesium, iron, potassium and phosphorus. Urea can yield cyanuric acid or biuret upon heating.

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## 6. ACCIDENTAL RELEASE MEASURES

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RELEASE NOTES: Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area. 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 bleach or soda ash and water. Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13, "Disposal Considerations".

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## 7. HANDLING AND STORAGE

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GENERAL PROCEDURES: Store in a cool, dry well-ventilated place. Do not use 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.

Large does of bifenthrin ingested by laboratory animals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For dust exposure, wear chemical

protective goggles or a face shield.

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.

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.

GLOVES: Wear chemical protective gloves made of materials such as nitrile. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

COMMENTS: Personal protective recommendations for mixing or applying this product are prescribed on the product label. Information stated above provides useful, additional guidance for individuals whose use or handling of this product is not guided by the product label.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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ODOR: Earthy, fertilizer-like
APPEARANCE: Dark-beige, granular-like
pH: 8.7
DENSITY: (Bulk) 1.45 g/cc
MOLECULAR WEIGHT: 422.88 (bifenthrin)
WEIGHT PER VOLUME: 90.6 lbs/cu ft. (1450 g/L)

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## 10. STABILITY AND REACTIVITY

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CONDITIONS TO AVOID: Excessive heat and fire.
STABILITY: Stable
POLYMERIZATION: Will not occur.
INCOMPATIBLE MATERIALS: Strong acids, caustic compounds, humid-wet conditions.

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## 11. TOXICOLOGICAL INFORMATION

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EYE EFFECTS: Expected to be mildly irritating to the eyes.

SKIN EFFECTS: Expected to be mildly irritating to the skin.
DERMAL LD50: No data available for the formulation.
ORAL LD50: No data available for the formulation.
INHALATION LC50: No data available for the formulation.
SENSITIZATION: This product is not expected to produce skin sensitization.
ACUTE EFFECTS FROM OVEREXPOSURE: This product is expected to have low oral, dermal and inhalation toxicity. It is expected to be mildly irritating to the skin and eyes. Ingestion of large amounts of the fertilizer may cause gastrointestinal disorder, nausea, vomiting and/or diarrhea.

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## 15. REGULATORY INFORMATION

produced signs of toxicity including convulsions, tremors and bloody nasal discharge. Bifenthrin does not cause acute delayed neurotoxicity. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.
CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to bifenthrin. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. 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)

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## 12. ECOLOGICAL INFORMATION

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ENVIRONMENTAL DATA: No data available for the formulation. Bifenthrin has moderate stability in the soil under aerobic conditions (half-life range from 65 - 125 days depending on soil type) and is stable at a wide range of pH values. 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: No data available for the

formulation. Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 ug/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).

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## 13. DISPOSAL CONSIDERATIONS

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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 from location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

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## 14. TRANSPORT INFORMATION

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U.S. DOT (DEPARTMENT OF TRANSPORTATION)

- REPORTABLE QUANTITY (RQ): None
- U.S. SURFACE FREIGHT CLASS: Fertilizing compound mixed with insecticide.
- MARINE POLLUTANT #1: Not listed

SPECIAL SHIPPING NOTES: NOTE: This material is not subject to the hazardous materials or dangerous goods regulations as specified in 49 CFR Parts 100-180, IMDG Code or ICAO.

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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
  - 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.: Not listed
  - SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): (bifenthrin 0.069% - below de minimis value)
- CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)
  - CERCLA REGULATORY (40 CFR 302.4): Not listed

COMMENTS: Australian Hazard Code: 3XE

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## 16. OTHER INFORMATION

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