

MATERIAL SAFETY DATA SHEET

TOMBSTONE™ HELIOS™

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300

Medical Emergencies: 1-800-301-7976

U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: TOMBSTONE™ HELIOS™
CHEMICAL NAME: Cyfluthrin; Cyano (4-fluoro-3-phenoxyphenyl) methyl-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate
CHEMICAL FAMILY: Pyrethroid Insecticide
EPA REG. NO.: 34704-978
MSDS Number: 000978-06-LPI
MSDS Revisions: New
Date of Issue: 02/27/07
Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING - AVISO – Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.) Warning. Causes substantial but temporary eye injury. Do not get in eyes or on skin or clothing. Wear protective eyewear (goggles or face shield). Harmful if swallowed or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

This product is dark amber liquid with a turpentine odor. Primary routes of entry are eye contact and skin contact.
This product is hazardous under the criteria of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Cyfluthrin	25.00	68359-37-5	Not Established
Inert Ingredients, including Naphthalene	75.00	91-20-3	52 mg/m ³

4. FIRST AID MEASURES

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

If swallowed: 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. Do not give anything by mouth to an unconscious person.

If on skin or clothing: 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.

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

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: This product is a Pyrethroid insecticide containing the active ingredient Cyfluthrin. No specific antidote is available. Treat symptomatically. Published data indicate that Vitamin E acetate can prevent and/or mitigate symptoms of paresthesia caused by synthetic pyrethroids. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): 152.8°F (67.1°C) / CC

FLAMMABLE LIMITS (LFL & UFL): Not established

EXTINGUISHING MEDIA: Foam or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: Not determined.

SPECIAL FIRE FIGHTING PROCEDURES: Keep out of smoke. Wear protective clothing and self-contained breathing apparatus. Cool exposed containers with water spray. Fight fire from upwind.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible. Can release vapors which can form explosive mixtures at temperatures at or above the flashpoint. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Small spill or leak: Avoid bodily contact. Keep unauthorized people away. Avoid breathing vapors and skin contact. Confine spill by diking with suitable absorbent material. Pick up absorbed spill and place in a suitable container for proper disposal in accordance with all Federal, State and Local regulations.

Large spill or leak: Follow basic procedure as outlined in small spill or leak steps above. To clean and neutralize spill area, tools and equipment, wash with a solution of detergent and bleach or detergent and lye in water solution. Follow this by washing with a strong soap and water solution. Absorb any excess liquid and add to the drums of waste collected. Repeat if necessary. Dispose in accordance with Federal, State and Local regulations.

CAUTION: Do not allow any spill clean up materials to enter waterways.

7. HANDLING AND STORAGE

HANDLING: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. See section 8 for additional information on personal protection. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in a cool, dry place and away from open flame and extreme heat. Store in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: When needed wear a NIOSH approved organic vapor respirator with particulate pre-filter.

EYE PROTECTION: Splash-proof goggles, face shield, or safety glasses.

SKIN PROTECTION: Wear chemical-resistant gloves, shoes plus socks, and apron while mixing undiluted product.

Naphthalene

OSHA PEL 8 hr TWA
50 mg/m³

ACGIH TLV-TWA
52 mg/m³

Personal Protective Equipment: Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate and Viton®, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Dark amber liquid with turpentine odor

SPECIFIC GRAVITY (Water= 1): 0.998 g/ml

VAPOR PRESSURE (mmHg): Not established

PERCENT VOLATILE (by volume): Not established

BULK DENSITY: 8.33 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

SOLUBILITY: Emulsifies

pH: 4.8 (1% emulsion)

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Alkaline media. Reacts with methanol. Incompatible with most disinfectants.

HAZARDOUS DECOMPOSITION PRODUCTS: Not determined.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat and open flame, and fire.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (female rat): 1030 mg/kg

Eye Irritation (rabbit): Severely irritating

Inhalation LC₅₀ (male rat): 0.54 – 2.04 mg/L (4 HR)

Carcinogenic Potential: No components listed in ACGIH, OSHA, NTP, or IARC as a carcinogen.

Acute Dermal LD₅₀ (rabbit) : > 2000 mg/kg

Skin Irritation (rabbit): Moderately irritating.

Skin Sensitization (guinea pig): Sensitizer.

12. ECOLOGICAL INFORMATION

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops when bees are visiting the treatment area.

13. DISPOSAL CONSIDERATIONS

Do not reuse empty container. **NON-REFILLABLE CONTAINERS:** Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. **RETURNABLE/REFILLABLE SEALED CONTAINER:** Do not rinse container. Do not break seals. Replace the dust cover/cap and return container, intact to point of purchase. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes can-not be disposed of 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. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: PYRETHROID PESTICIDE, LIQUID, TOXIC (CYFLUTHRIN), 6.1, UN3352, III ERG GUIDE 151

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OR VERMIN EXTERMINATORS, ANIMAL OR POULTRY, NOI; POISON (NMFC 102100; CLASS: 77.5)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION**NFPA & HMIS Hazard Ratings:****NFPA**

2	Health	0	Least
2	Flammability	1	Slight
1	Instability	2	Moderate
		3	High
		4	Severe

HMIS

2	Health
2	Flammability
1	Reactivity
H	PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:	Immediate	<u>Y</u>	Fire	<u>Y</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>Y</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Naphthalene (CAS: 91-20-3) (6.8% in product) 100 lbs.)

SARA, Title III, Section 313: Cyfluthrin (CAS: 68359-37-5) 25%; Naphthalene (CAS: 91-20-3) 6.8%

RCRA Waste Code: Not listed

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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This product is a Restricted Use Pesticide (Toxicity to Fish and Aquatic Organisms)

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