

# MATERIAL SAFETY DATA SHEET

TOMBSTONE™

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: 1-866-944-8565

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

PRODUCT NAME: TOMBSTONE™ INSECTICIDE

CHEMICAL NAME: Cyfluthrin; Cyano (4-fluoro-3-phenoxyphenyl) methyl-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate

CHEMICAL FAMILY: Pyrethroid Insecticide

EPA REG. NO.: 34704-912

MSDS Number: 000912-12-LPI

MSDS Revisions: Sections 3, 14 and 15

Date of Issue: 11/30/12

Supersedes: 05/18/11

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – DANGER - PELIGRO – DANGER:** Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. May be fatal if inhaled. Do not breathe vapors or spray mist. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

This product is dark amber liquid with an aromatic 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	24.74	68359-37-5	Not Established
Other Ingredients, including Naphthalene	75.26	91-20-3	52 mg/m <sup>3</sup>

## 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: 1-866-944-8565.** 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):** 144°F (62.2°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.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Naphthalene	50 mg/m <sup>3</sup>	52 mg/m <sup>3</sup>

**Personal Protective Equipment: Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or Viton® (If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.), shoes plus socks, and protective eyewear. **Mixers/loaders supporting aerial applications and chemigation applications must wear also** (except when using closed mixing/loading systems): A dust/mist filtering respirator MSHA/NIOSH approval number prefix TC-21C. 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**

---

<b>APPEARANCE AND ODOR:</b> Dark amber liquid with aromatic odor	<b>SOLUBILITY:</b> Emulsifies
<b>SPECIFIC GRAVITY (Water= 1):</b> 0.983 g/ml	<b>pH:</b> 5.5 (5% emulsion)
<b>VAPOR PRESSURE (mmHg):</b> Not established	
<b>PERCENT VOLATILE (by volume):</b> Not established	
<b>Note:</b> 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.	

---

**10. STABILITY AND REACTIVITY**

---

**STABILITY:** Stable

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

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

**HAZARDOUS DECOMPOSITION PRODUCTS:** Not determined.

**HAZARDOUS POLYMERIZATION:** Will not occur.

---

**11. TOXICOLOGICAL INFORMATION**

---

<b>Acute Oral LD<sub>50</sub> (male rat):</b> 1015 mg/kg	<b>Acute Dermal LD<sub>50</sub> (rabbit):</b> > 2000 mg/kg
<b>Eye Irritation (rabbit):</b> Severe eye irritant with corneal opacity lasting at least 21 days.	<b>Skin Irritation (rabbit):</b> Moderately irritating.
<b>Inhalation LC<sub>50</sub> (male rat):</b> 1.323 mg/L (4 HR)	<b>Skin Sensitization (guinea pig):</b> Sensitizer.
<b>Carcinogenic Potential:</b> No components listed in ACGIH, OSHA, NTP, or IARC as a carcinogen.	

---

**12. ECOLOGICAL INFORMATION**

---

This product is extremely toxic to fish and aquatic invertebrates. **For terrestrial uses:** 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**

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot 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.

**CONTAINER HANDLING: Non-refillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **For packages up to 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 5 gallons or 50 lbs:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For square bottom caged totes greater than 55 gals.:** Triple rinse or pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container about ¼ full with water, rinsing down all sides inside the container thoroughly. Recirculate water with the pump for 2 minutes. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**14. TRANSPORT INFORMATION**

**DOT Shipping Description:** 119 GALLONS OR LESS: NOT REGULATED BY DOT

**DOT Shipping Description:** GREATER THAN 119 GALLONS: RQ NA1993, COMBUSTIBLE LIQUID N.O.S. (NAPHTHALENE), III ERG GUIDE 128

**U.S. Surface Freight Classification:** INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120; CLASS: 60)

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
G PPE

**SARA Hazard Notification/Reporting**

<b>SARA Title III Hazard Category:</b>	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) 24.74%; 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.

**DANGER** – This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

**16. OTHER INFORMATION**

**MSDS STATUS:** Sections 3, 14 and 15 revised

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

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

*®Viton is a registered trademark of DUPONT PERFORMANCE ELASTOMERS L.L.C.*

**Disclaimer and Limitation of Liability:** This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.