

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

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 **PRODUCT IDENTIFIER:**
TRADE NAME: TOMBSTONE™
- 1.2 **RECOMMENDED USE:** CONTROL OF CERTAIN INSECT PESTS ON FIELD, VEGETABLE, TREE AND VINE CROPS
- 1.3 **SUPPLIER DETAILS:**
 LOVELAND PRODUCTS, INC.
 P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Eye Damage/Irritation	Category 1	H318
Acute Toxicity – Oral	Category 4	H302
Acute Toxicity – Inhalation	Category 2	H330
Acute Toxicity – Dermal	Category 4	H312
Sensitization – Skin	Category 1	H317

2.2 Label elements



Signal word: DANGER
 Hazard Statement: H318 – Causes serious eye damage.
 H302 – Harmful if swallowed.
 H330 – Fatal if inhaled.
 H312 – Harmful in contact with skin.
 H317 – May cause an allergic skin reaction.

Precautionary Statement: (Prevention): P280 – Wear protective gloves/protective clothing/eye protection/face protection.
 P264 – Wash hands, face and skin thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
 P271 – Use only outdoors or in a well-ventilated area.
 P285 – In case of inadequate ventilation wear respiratory protection.
 P272 – Contaminated work clothing must not be allowed out of the workplace.

Precautionary Statement: (Response): P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P310 – Immediately call a POISON CENTER or doctor/physician.
 P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P330 – Rinse mouth.
 P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 P310 – Immediately call a POISON CENTER or doctor/physician.
 P320 – Specific treatment is urgent (see Note to Physician on the product label).
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
 P321 – Specific treatment (see Note to Physician on the product label).
 P362 – Take off contaminated clothing and wash it before reuse.
 P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.
 P321 – Specific treatment (see First Aid on the product label).
 P363 – Wash contaminated clothing before reuse.



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Precautionary
Statement:

(Storage):

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

Precautionary
Statement:

(Disposal)

P501 – Dispose of contents/container to an approved waste disposal to an approved waste disposal facility.

2.3 Other hazards

None known.

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Cyfluthrin	68359-37-5	24.74
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	67.96
consists of:		
Naphthalene	91-20-3	< 6.80
1,2,4-Trimethylbenzene	95-63-6	< 1.10

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

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:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. 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 mouth-to-mouth if possible. Call a poison center or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Central nervous system effects.

4.3 Immediate Medical Attention and Special Treatment

Treatment: This product contains petroleum distillates.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

NOTES 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.



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Foam or dry chemical.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: 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.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry. Fight fire from upwind.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: This pesticide 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.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: 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. 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. Remove residual contamination. Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: 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

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
1,2,4-Trimethylbenzene	TLV	25 ppm / 123 mg/m ³
Naphthalene	TLV	10 ppm / 52 mg/m ³ (Skin)
	STEL/CEIL (C)	15 ppm / 79 mg/m ³



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U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Naphthalene	TLV	10 ppm / 52 mg/m ³

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No data available		

8.2 EXPOSURE CONTROLS:

Engineering Measures

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.

Individual Protection Measures:

- Eye / Face Protection: Protective eyewear. (Goggles or face shield).
- Skin Protection: Long-sleeved shirt and long pants. Shoes plus socks. Chemical-resistant gloves. Chemical-resistant apron for mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- Respiratory Protection: **Except when using closed mixing loading systems, mixers and loaders supporting aerial applications or chemigation applications must wear:** A NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 APPEARANCE : Clear liquid
- ODOR: Hydro carbon-like.
- ODOR THRESHOLD: No data available.
- COLOR: Golden amber.
- pH: 4.33
- MELTING POINT / FREEZING POINT: No data available
- BOILING POINT: No data available
- FLASH POINT: 152 °F / 66.8 °C (TCC).
- FLAMMABILITY (solid, gas): No data available.
- UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
- VAPOR PRESSURE: No data available.
- SOLUBILITY: Emulsifies.
- PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
- AUTO-IGNITION TEMPERATURE: No data available.
- DECOMPOSITION TEMPERATURE: No data available.
- VISCOSITY [Kinematic]: 3.954 centistokes @ 20 °C / 68 °F | 2.40 centistokes @ 40 °C / 104 °F
- SPECIFIC GRAVITY (Water = 1): 0.978 g/ml
- DENSITY: 8.16 lbs./gal / 0.98 kg/L

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.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Will not polymerize.

10.4 CONDITIONS TO AVOID

Excessive heat and open flame, and fire.

10.5 INCOMPATIBLE MATERIALS

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

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Not determined.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Skin absorption. Inhalation. Skin contact. Ingestion.

LC₅₀ (rat): 0.54 – 2.04 mg/L (4 HR).

LD₅₀ Oral (female rat): 1,030 mg/kg

LD₅₀ Dermal (rabbit): > 5,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Moderately irritating to the skin.

Eye Irritation (rabbit): Severely irritating to the eye.

Specific Target Organ Toxicity: Skin, Central Nervous System, Liver, Kidneys.

Aspiration: Vomiting may cause aspiration pneumonia.

Skin Sensitization (guinea pig): Sensitizer

Carcinogenicity: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is extremely toxic to fish and aquatic invertebrates.

Ecotoxicological Data

	Species	Test Results
Cyfluthrin	Rainbow trout	0.00068 mg/L – 96-hour LC ₅₀
	Daphnia magna	0.00000014 mg/L – 48-hour EC ₅₀

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Pesticide wastes are acutely toxic. 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. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

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)



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15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:		NFPA		HMIS
2	Health	0	Least	2 Health
2	Flammability	1	Slight	2 Flammability
1	Instability	2	Moderate	1 Reactivity
		3	High	G PPE
		4	Severe	

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) 100 lbs.

SARA, Title III, Section 313: Cyfluthrin (CAS: 68359-37-5); Naphthalene (CAS: 91-20-3); 1,2,4-Trimethylbenzene (CAS: 95-63-6).

RCRA Waste Code: None 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.

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. Following is the hazard information as required on the pesticide label:

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 reactions in some individuals.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-912

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