

MATERIAL SAFETY DATA SHEET

TRIFLURALIN 10G

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: TRIFLURALIN 10G
CHEMICAL NAME: Trifluralin: α, α , α -trifluoro-2,6-dinitro-*N,N*-dipropyl-*p*-toluidine
CHEMICAL FAMILY: Trifluorodinitrotoluidine Herbicide
EPA REG. NO.: 34704-790
MSDS Number: 000790-04b-LPI

MSDS Revisions: See section 16

Date Of Issue: 07/12/04

Supersedes: 05/24/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION – Causes eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing dust and contact with skin, eyes or clothing. This product may cause skin sensitization in some individuals.

This product is a yellow to orange granule with a mild aromatic odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Trifluralin	10.00	1582-09-8	none established
Inert Ingredients, including: Clay (contains Crystalline Silica)	90.00	8031-18-3 14808-60-7	0.05 mg/m ³

This product is hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

4. FIRST AID MEASURES

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.
If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.
If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
If on skin: Wash with plenty of soap and water. Get medical attention.
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Does not flash
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Oxides of nitrogen and carbon other unknown hazardous materials may be formed in a fire situation.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Do not allow water runoff to enter nearby streams, ponds or lakes.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

In case of leak or spill, scoop or sweep up material and place in a container for possible land application according to label use or for proper disposal. Wash the spill area with water containing a strong detergent. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff from flowing onto adjacent land, or into municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and 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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in original container only. In case of spill, contain material and dispose as waste. Do not contaminate water, food or feed by storage or disposal.

Personal Protective Equipment: Applicators and other handlers must wear: long sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, or Viton[®] \geq 14 mils, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

RESPIRATORY PROTECTION: Not normally required, if dusts or vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator with cartridges for pesticide vapors.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks. Wear rubber or chemical-resistant gloves.

Crystalline Silica	OSHA PEL 8 hr TWA 30 mg/m ³ % SiO ₂ + 2	ACGIH TLV-TWA 0.05 mg/m ³
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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Yellow to orange granule with mild aromatic odor.	SOLUBILITY: Insoluble
SPECIFIC GRAVITY (Water = 1): 0.769 g/ml	BULK DENSITY: 48.0 lbs/ft ³
VAPOR PRESSURE: Not established	BOILING POINT: Not established
PERCENT VOLATILE (by volume): 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.

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Strong oxidizers and acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon other unknown hazardous materials may be formed in a fire situation.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat and cold.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5050 mg/kg	Acute Dermal LD₅₀ (rabbit): >2020 mg/kg
Eye Irritation (rabbit): Causes moderate eye injury	Skin Irritation (rabbit): Causes slight irritation
Inhalation LC₅₀ (rat): >2.38 mg/L (4 HR).	Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenic Potential: Crystalline silica is classified as carcinogenic to humans by IARC; a potential occupational carcinogen by NIOSH; a suspected human carcinogen by ACGIH; and known to be a human carcinogen by NTP.

12. ECOLOGICAL INFORMATION

This pesticide is extremely toxic to freshwater marine and estuarine fish and aquatic invertebrates including shrimp and oyster. 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 in a manner that will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment wash waters.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in a sanitary landfill or by incineration, in accordance with applicable regulations, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: Less than 100 pounds: NOT REGULATED

DOT Shipping Description: 100 pounds and greater: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, UN3077, III (TRIFLURALIN) ERG GUIDE 171

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: 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		HMIS
	2 Health	0 Least	2 Health
	0 Flammability	1 Slight	0 Flammability
	1 Instability	2 Moderate	1 Reactivity
		3 High	HI PPE
		4 Severe	

SARA Hazard Notification/Reporting

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

Reportable Quantity (RQ) under U.S. CERCLA: Trifluralin (CAS: 1582-09-8) 10 lbs.
SARA, Title III, Section 313: Trifluralin (CAS: 1582-09-8) 10.0% [TRI Threshold: 100 lbs.]
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Format modified to address changes in ANSI Standard Z400.1-2004

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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