

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: TRIFLURALIN 10G

1.2 RECOMMENDED USE: HERBICIDE – GROUP 3 – FOR CONTROL OF LISTED WEEDS AND GRASSES

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

Acute Toxicity – Oral	Category 4	H302
Sensitization – Skin	Category 1	H317
Eye Damage/Irritation	Category 2B	H320
Acute Toxicity – Inhalation	Category 4	H332
Combustible Dust		

2.2 Label elements



Signal word: WARNING
 Hazard Statement: H302 – Harmful if swallowed.
 H317 – May cause an allergic skin reaction.
 H320 – Causes eye irritation.
 H332 – Harmful if inhaled.
 May form combustible dust concentrations in air.

Precautionary Statement: (Prevention): P264 – Wash face, hands and any exposed skin thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P261 – Avoid breathing dust/fumes/gas/mist/vapors/spray.
 P272 – Contaminated work clothing must not be allowed out of the workplace.
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.
 P271 – Use only outdoors or in a well-ventilated area.

Precautionary Statement: (Response): P301+P312 – IF SWALLOWED: Call a poison center or doctor/physician if you feel unwell.
 P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
 P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.
 P321 – Specific treatment (see FIRST AID and additional medical contact information on the product label).
 P363 – Wash contaminated clothing before reuse.
 P304+P340 – IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing.
 P312 – Call a poison center or doctor/physician if you feel unwell.
 P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 – If eye irritation persists: Get medical advice/attention.

Precautionary Statement: (Storage): Not applicable or required.
 Precautionary Statement: (Disposal): Not applicable or required.



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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 [%]
Trifluralin	1582-09-8	10.00
Other ingredients*	n/a	90.00

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

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:** 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 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 control center or doctor for further treatment advice.
- 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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed. Harmful if inhaled. Causes eye irritation. May cause an allergic skin reaction.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatic and supportive.

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

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



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Foam, carbon dioxide (CO₂), dry chemical, foam or water spray or fog. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, oxides of carbon and oxides of nitrogen can be released.

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.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of dusts and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: This product 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 in which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment wash waters.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large and Small Spills: Wet down with water and dike for later disposal. Avoid breathing dusts. Contain large and small spills. Sweep up spills and transfer to chemical containers for disposal. Keep dusting to a minimum. If spill includes liquid, contain with diking and transfer the material to appropriate containers for disposal or reclamation. Absorb remaining material or small spills with an inert material then place in chemical waste containers. Flush residual spill area with water. Check local, state and federal regulations for proper disposal.

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



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 CONTROL PARAMETERS:
OCCUPATIONAL EXPOSURE LIMITS**

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
No listings	TLV	
	TLV	

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
PNOC*	TWA	15 mg/m ³ (Total dust)
*Particulates not otherwise classified		5 mg/m ³ (Respirable fraction)

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

8.2 EXPOSURE CONTROLS:

Engineering Measures

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements 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.

Individual Protection Measures:

- Eye / Face Protection: Goggles or shielded safety glasses are recommended.
- Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Shoes plus socks.
- Respiratory Protection: Not normally required. 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 : Dust
- ODOR: Mild aromatic.
- ODOR THRESHOLD: No data available.
- COLOR: Yellow to gold.
- pH: 7.7 (50/50 Aqueous)
- MELTING POINT / FREEZING POINT: No data available.
- BOILING POINT: No data available
- FLASH POINT: Does not flash.
- FLAMMABILITY (solid, gas): No data available.
- UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
- VAPOR PRESSURE: No data available.
- SOLUBILITY: Insoluble.
- PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
- AUTO-IGNITION TEMPERATURE: No data available.
- DECOMPOSITION TEMPERATURE: No data available.
- VISCOSITY: No data available.
- SPECIFIC GRAVITY (Water = 1): 0.66 g/ml
- BULK DENSITY: 41.38 lbs./ft³ / 662 kg/m³

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.



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10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

10.4 CONDITIONS TO AVOID

Keep away from heat, sparks and open flame. Minimize dust generation and accumulation.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizers and acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of nitrogen, oxides of carbon and other unknown hazardous materials may be formed in a fire situation..

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Ingestion. Eye Contact. Inhalation. Dermal.

LC₅₀ (rat): 2.65 mg/L (4 HR).

LD₅₀ Oral (rat): > 5,050 mg/kg

LD₅₀ Dermal (rabbit): > 2,020 mg/kg

Acute Toxicity Estimates: No data available.

Skin Irritation (rabbit): May causes skin irritation.

Eye Irritation (rabbit): Causes eye irritation

Specific Target Organ Toxicity: No data available.

Aspiration: No data available.

Skin Sensitization (guinea pig): May cause an allergic skin reaction.

Carcinogenicity: No data available.

Germ Cell Mutagenicity: Not observed in studies.

Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicological Data

	Species	Test Results
Trifluralin	Rainbow trout	0.41 ppm – 96 hour LC ₅₀
	Bluegill	0.58 ppm – 96 hour LC ₅₀
	Bee	> 100 µ/bee (contact)

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.



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13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, 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

14.3 LAND TRANSPORT

DOT Shipping Description: 100 pounds and less: NOT REGULATED BY US DOT FOR SURFACE TRANSPORTATION

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

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA

HMS

2 Health

0 Least

2 Health

0 Flammability

1 Slight

0 Flammability

1 Instability

2 Moderate

1 Reactivity

3 High

H PPE

4 Severe

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate

Y

Fire

N

Sudden Release of Pressure

N

Delayed

Y

Reactive

N

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.

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:

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 sensitization reactions in some people.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-790

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