



MATERIAL SAFETY DATA SHEET

Product: Gowan Trifluralin 10G

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(520) 783-8844

Emergency Phone: (520) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®:

For MEDICAL Emergency:

Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
(800) 225-5635 ext. 283

1. CHEMICAL IDENTIFICATION

Product: Trifluralin 10G
EPA Signal Word: Caution
Active Ingredient: Trifluralin (10.0%)
Chemical Name: α, α, α -trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine
Chemical Class: Herbicide

EPA Registration No.: 10163-120
CAS No.: 1582-09-8

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Trifluralin (10.0%)	Not applicable	Not applicable	Not established	No
Crystalline Silica - granulated (2.4%) CAS# 71-36-3	Variable	0.1 mg/m ³	Not established	No
Xylene (>1.0%) CAS# 1330-20-7	100 ppm	100 ppm	Not established	No
Naphthalene (>4.0%) CAS# 91-20-3	10 ppm	10 ppm	Not established	No

3. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Yellow granule

Odor: Aromatic odor

Symptoms of Overexposure

The more commonly reported adverse effects following exposure to trifluralin products are skin irritation and rash, nausea, vomiting, cramping, and diarrhea, eye irritation, dizziness, headache, and other minor central nervous system effects, fever and/or chills, and muscle aches or weakness.

Medical Conditions Likely to be Aggravated by Exposure

Pre-existing medical conditions involving the above symptoms may be aggravated by exposure.

Primary Routes of Exposure

Skin and inhalation. Product can cause substantial but temporary eye injury.

Hazardous Decomposition Products

Burning produces toxic vapors.

Unusual Fire, Explosion, and Reactivity Hazards

None known

4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

Ingestion: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

Inhalation: Remove victim to fresh air. Apply artificial respiration if indicated.

Eye Contact: Flush eyes with plenty of clear water for at least 15 minutes. Get medical attention.

Skin Contact: Remove contaminated clothing and wash skin immediately with soap and warm water.

!! IN ALL CASES OF SUSPECTED POISONING, GET MEDICAL ATTENTION IMMEDIATELY !!

For emergency **MEDICAL** response and hazard communication **ONLY**, call:

Hazard Information Services at (800) 228-5635 ext. 283.

5. FIRE FIGHTING MEASURES

Flashpoint (test method): No ignition up to 1382°F (750°C)

Flammable Limits (% in air): Not applicable

Autoignition Temperature: Not available

Appropriate Extinguishing Media

Considered non-flammable.

Fire Fighting Guidance

Will emit toxic fumes as it burns. Wear full protective clothing and use self-contained breathing apparatus. Non-essential personnel should be restricted from area of intense smoke. Do not allow water run-off from fire site to enter nearby streams, ponds or lakes. Keep containers cooled with water spray.

Unusual Fire, Explosion, and Reactivity Hazards

May emit toxic fumes when heated to decomposition. Do not allow water run-off from fire site to enter nearby streams, ponds or lakes. Keep containers cooled with water spray.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

In case of leak or spill, contain material and dispose of waste. Sweep up material. Place it and damaged unusable containers in a landfill approved for pesticides in accordance with applicable regulations. Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC (800) 424-9300. Prevent spilled material from flowing onto adjacent land or into streams, ponds or lakes.

7. HANDLING AND STORAGE

Precautions in storing

DO NOT contaminate water, food or feed by storage or disposal. Keep out of reach of children. Do not store near heat or open flame.

Storing

Store in original bag only. In case of puncture or spill, contain material and dispose of waste

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation is recommended for manufacture and formulation. Store in well-ventilated area. Allow closed trucks adequate time to ventilate prior to entering.

Eye/Face: Wear protective eyewear that is appropriate to exposure potential.

Skin Protection: Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

Respiratory Protection: Not required; however, to avoid inhalation of excess airborne dusts, use a NIOSH/MSHA approved dust/mist filtering respirator.

Additional Protection

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

Information: Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Applicators/Handlers: Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

User Safety Recommendations: Users should 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow granule
Odor: Aromatic odor
Melting Point: Not applicable
Boiling Point: Not applicable
Specific Gravity/Density: 0.7 g/cc

Solubility in H₂O
Trifluralin Not soluble in water

Vapor Pressure
Trifluralin Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur

Decomposition Products: Burning produces toxic vapors

Hazardous Mixtures: None known

Conditions To Avoid: Avoid extreme cold or heat.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion: Acute Oral LD₅₀ (rat): >10,000 mg/kg body weight
Dermal: Acute Dermal LD₅₀ (rabbit): >2,000 mg/kg body weight
Eye Contact: Irritant
Skin Contact: Slight irritant
Dermal Sensitization: Not expected to cause sensitization

Mutagenic Potential
Not available

Reproductive Hazard Potential
Not available

Chronic/Subchronic Toxicity Studies
Not available

Carcinogenic Potential
None

Other Toxicity Information
Not available

12. ECOLOGICAL INFORMATION

Summary of Effects

Trifluralin

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff from treatment areas may be hazardous to aquatic organisms and neighboring aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

Other Environmental Information Use Precautions

Not available

13. DISPOSAL CONSIDERATION

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. For information concerning the proper disposal of pesticide-related wastes, contact your State Environmental Department, State Department of Agriculture, or the Regional Office of the Environmental Protection Agency for your area.

Container Disposal

Do not reuse bag. 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.

14. TRANSPORT INFORMATION

DOT Classification

RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Trifluralin), 9, UN 3077, PG III, NAERG #171

International Maritime Organization

RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Trifluralin), 9, UN 3077, PG III, NAERG #171

International Civil Aviation Organization

RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Trifluralin), 9, UN 3077, PG III, NAERG #171

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304:	Not applicable
Section 311/312:	Immediate (acute) health hazard Delayed (chronic) health hazard
Section 313 chemical(s):	Trifluralin, Naphthalene, Xylene

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

100 lbs. of product (10 lbs. of Trifluralin)

RCRA Classification

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA Status

Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Notice: The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

Prepared By:

Gowan Company
(520) 783-8844