



Safety Data Sheet

Report Date 06-Nov-15

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1. Identification

Product Name : TAPOUT (EPA Reg. No. 5905-578)
Synonyms : None
Product Use : Clethodim Selective Grass Herbicide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification

Signal Word : Warning (no symbol)
Skin Irritation : Slightly irritating to the skin. Mean score is 1.2 at 24, 48 and 72 hours.
Eye Irritation : Minimally irritating to eyes. Mean score ≤ 1 at 24, 48, and 72 hours and effects were fully reversible by 48 hours.
Acute Toxicity Oral : LD50 >5,000 mg/kg (female rats)
Acute Toxicity Dermal : LD50 >5,000 mg/kg (rats)
Hazard Categories : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/3; Combustible-4
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled
Combustible liquid

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Clethodim	99129-21-2	12.6
Inert ingredients, including surfactants and methylated soybean oil.	Proprietary	87.4

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation : 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.
Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.
Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically. Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probably mucosal damage may contraindicate use of gastric lavage.

5. Fire Fighting Measures

Extinguishing Media : Use foam, dry chemical, carbon dioxide or water fog extinguishing agents.



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Specific Hazards Arising from the Chemical : May produce toxic and irritating fumes under fire conditions.

Special Fire Fight Proc : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Do not allow spilled product to enter waterways, lakes, streams, ponds or storm drains.
- Methods and Materials for Containment and Cleanup** : Contain spilled liquids with absorbent materials, such as clay, sand or sawdust. Wash spill area with soap and water. Collect and place in same containers as collected spill material.

7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed. Do not allow water to be introduced into the contents of the container.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No PEL or TLV established for active ingredient (clethodim).
- Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear, yellow to amber liquid with mild odor.
- Flash Point, °F** : 80.6 Degrees C.
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : Not determined
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 0.915-0.935
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : No information found
- pH** : 4.0 to 5.0 (1%)
- Flammable Limits (approximate volume % in air)** : Not determined
- Auto-ignition Temperature** : Not determined
- Decomposition temperature** : No information found



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10. Stability and Reactivity

- Reactivity** : No information found
Chemical Stability : Stable
Hazardous Decomposition : May produce toxic and irritating fumes under fire conditions.
Products
Hazardous Polymerization : Will not occur
Conditions to Avoid : May become unstable after exposure to extreme pH, extreme temperatures and upon exposures to UV light.
Incompatible Materials : May react with strong oxidizing agents, such as chlorates, nitrates and peroxides.

11. Toxicological Information

- Acute Toxicity (Oral LD50)** : >5,000 mg/kg (female rats). May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : >5,000 mg/kg (rats). May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : >2.07 mg/L/4 hour (rats, exposed to aerosol). May be harmful if inhaled.
Likely Routes of Exposure : Skin, eyes, ingestion, inhalation
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Skin Sensitization : Not a contact sensitizer (guinea pig).
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : No information found
Other Hazards : In test studies, animals exposed to Clethodim technical, the active ingredient in this formulation, have been observed to have increased liver weights and anemia.

12. Ecological Information

- Ecotoxicity** : Clethodim is toxic to estuarine and marine invertebrates. Slightly toxic to birds.
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : May leach through soil into ground under certain conditions.
Other Adverse Effects : No information found

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : Not regulated by DOT. Regulated by IATA and IMDG as a Marine Pollutant.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : Marine Pollutant under GHS criteria. Not a Marine Pollutant per 49 CFR 172.101, Appendix B.
Transport in Bulk : No information found
Special Precautions for Transportation : If shipped by air (IATA) or water (IMDG), ship as: UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Clethodim), 9, PG III, Marine Pollutant



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Freight Classification : Pesticides, NOI, Herbicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 5905-578

FIFRA Signal Word : Caution

FIFRA Label Statement : Harmful if swallowed.

FIFRA Label Statement : Causes moderate eye irritation.

FIFRA Label Statement : Avoid contact with eyes, skin or clothing.

FIFRA Label Statement : Wash thoroughly with soap and water after handling and before eating,

FIFRA Label Statement : drinking, chewing gum or using tobacco.

FIFRA Label Statement : Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 06-November-2015