



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND CHEMICAL IDENTIFICATION

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(928) 783-8844

Emergency Phone: (928) 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
(888) 478-0798

Product: Eradicane® 6.7-E

EPA Signal Word: Warning

Active Ingredient: EPTC (82.6%)

Chemical Name: S-ethyl dipropylthiocarbamate

Chemical Class: Thiocarbamate

EPA Registration No.: 10163-284

CAS No.: 759-94-4

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Amber liquid

Odor: Aromatic

Symptoms of Acute Exposure

Laboratory tests in animals have shown that exposure to the active ingredient in this product, followed by ingestion of alcohol, may cause an adverse reaction, including low blood "pressure, rapid heart beat, and flushing of the skin. Consumption of alcohol during and after exposure to this product should be avoided. This product is a cholinesterase inhibitor. Severe cases of cholinesterase inhibition may lead to convulsions, pulmonary edema, respiratory failure, and death. Symptoms of cholinesterase inhibition may include salivation, tearing, sweating, muscle twitching, tremors, incoordination, headache, dizziness, nausea, cramps, and diarrhea.

Primary Routes of Exposure

The principal routes of exposure are skin contact with the product and inhalation of its mists or vapors.

Medical Conditions Likely to be Aggravated by Exposure

Thiocarbamates have been shown in laboratory animals to cause a disulfiram (Antabuse®) –type reaction in combination with alcohol.

Hazardous Decomposition Products

Combustion products: Toxic materials

Unusual Fire, Explosion, and Reactivity Hazards

This material will support combustion and may decompose under fire conditions to give off toxic materials.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
EPTC (82.6%)	Not Listed	Not Listed	0.3 mg/m ³ TWA	No
Other Ingredients (17.4%)				
2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (IUPAC) CAS#52836-31-4	Not Listed	Not Listed	N/A	No
Kerosene CAS #8008-20-6	Not Listed	Not Listed	100 mg/m ³ TWA	No
Surfactant blend	Not Listed	Not Listed	N/A	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

4. FIRST AID MEASURES

If in eyes	<ul style="list-style-type: none">• 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 on skin or clothing	<ul style="list-style-type: none">• 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 swallowed	<ul style="list-style-type: none">• 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 by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• 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.

Note to Physician

Probable mucosal damage may contraindicate the use of gastric lavage. This product contains EPTC, a thiocarbamate that inhibits cholinesterase. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. Pralidoxime chloride (2-PAM) is NOT recommended as an antidote for this compound. Thiocarbamates have been shown in laboratory animals to cause a disulfiram (Antabuse[®]) -type reaction in combination with alcohol.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: (888) 478-0798

5. FIRE FIGHTING MEASURES

Flashpoint (test method): 186°F, 85.6°C (Tag CC)

Flammable Limits (% in air): No data

Autoignition Temperature: No data

Appropriate Extinguishing Media

Use dry chemical, foam or CO₂ extinguishing media.

Fire Fighting Guidance

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

Unusual Fire, Explosion, and Reactivity Hazards

This material will support combustion and may decompose under fire conditions to give off toxic materials.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place, into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions in storing

Store the material in a well ventilated secure area out of reach of children and domestic animals. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Storage

Keep container tightly closed when not in use. Do not store near seed, fertilizers, or foodstuffs. Can be stored at temperatures as low as minus 50°F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Commercial (for-hire) Handlers engaged in impregnating this product onto dry bulk fertilizer must:

- Wear the personal protective equipment required for mixers/loaders, except shoes may be substituted for chemical-resistant footwear, and
- Have immediately available for use in case of an accident a NIOSH approved respirator with:
 - an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or
 - a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or
 - a NIOSH approved respirator with an (OV) cartridge, or
 - a canister with any N, R, P, or HE prefilter

When other handlers use closed systems or enclosed cabs, in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS. **IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Data indicated below refer to active ingredient: EPTC

Boiling Point: 127°C/20 mmHg

Specific Gravity/

Density: 0.9546 (30°C)

Solubility in H₂O

Active Ingredient - 375 mg/l (25°C). Miscible with common organic solvents, e.g. acetone, ethanol, isopropanol, benzene, xylene, kerosene.

Vapor Pressure

Active Ingredient – 10 × 10³ mPa (25°C)

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions

Hazardous

Polymerization: Will not occur

Decomposition

Products: Combustion products: Toxic materials

Conditions

To Avoid: This product is relatively non-reactive. It will not react with water. The product is not corrosive to materials commonly used in the construction of process equipment, storage and shipping containers.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion: Oral LD₅₀ (rat) 2000-2870 mg/kg

Dermal: Dermal LD₅₀ (rabbit) >4.0 g/kg

Inhalation: Inhalation LC₅₀ 6.5 mg/l (4 hr)

Eye Contact: Extremely irritating in rabbit eye studies. Irritation with redness and tearing and possible corneal injury may occur after human eye contact.

Skin Contact: This material was mildly irritating in rabbit dermal irritation studies. Short contact periods with human skin will probably not produce irritation. Mild irritation with redness, itching or burning can develop following repeated or prolonged contact with human skin.

12. ECOLOGICAL INFORMATION

This chemical is toxic to mammals. Do not apply directly to water, or to areas where water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

The information presented here is for the active ingredient, EPTC. A thorough review of environmental information is not possible in this document.

Persistence (Half-Life): Soil: - 9 days. Water: Stable.

Photolysis (Half-Life): Water: Stable.

Leaching/Mobility: High Mobility (Koc = 136 - 264)

Soil Metabolism: Volatilization and soil metabolism are main dissipation pathways.

Action in Water (after 24 hrs.): Floats.

Ecotoxicity data shown is for the active ingredient, EPTC.

96-hr LC₅₀ Cutthroat trout: >17 mg/L;

96-hr LC₅₀ Bluegill sunfish: >27 mg/L;

96-hr LC₅₀ Rainbow trout: >19 mg/L.

Slightly toxic to fish.

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.

Container Disposal

Metal – Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic – Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Bulk/Mini-Bulk Containers

Container Disposal

Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

Container Precautions

Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. REFILL ONLY WITH Eradicane 6.7-E. The contents of this container cannot be completely removed by cleaning. Refilling with materials other than Eradicane 6.7-E will result in contamination and may weaken container.

Hazardous Information

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

14. TRANSPORT INFORMATION

DOT Classification

Not regulated

International Maritime Organization

Not regulated

International Civil Aviation Organization

Not regulated

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304: Not applicable
Section 311/312: Immediate (acute) health hazard

Section 313 chemical(s): EPTC

Proposition 65

This product contains a chemical known to the state of California to cause Birth Defects or other reproductive harm.

CERCLA Reportable Quantity (RQ)

None.

RCRA Classification

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

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 2
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Prepared By:

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(928) 783-8844

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