



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Formulator:** Gowan Company  
P.O. Box 5569  
Yuma, Arizona 85366-5569  
(800) 883-1844

**Emergency Phone:** (928) 783-3803  
**For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®:** **Inside the U.S.:** (800) 424-9300  
**Outside the U.S.:** (703) 527-3887  
(888) 478-0798  
**For Medical Emergency:**

**Product:** EPTAM® 7-E  
**EPA Signal Word:** Warning  
**Active Ingredient:** EPTC (87.8%)  
**Chemical Name:** S-ethyl dipropylthiocarbamate  
**Chemical Class:** Thiocarbamate

**EPA Registration No.:** 10163-283  
**CAS No.:** 759-94-4

### 2. HAZARDS IDENTIFICATION

#### Physical Properties

**Appearance:** Amber liquid  
**Odor:** Not determined

#### Symptoms of Acute Exposure

Causes eye, skin and respiratory passage irritation. Exposure to high vapor levels may cause headache, dizziness, numbness, nausea, incoordination, or other central nervous system effects. This product is a cholinesterase inhibitor. Principal routes of exposure are skin contact and inhalation. Symptoms of cholinesterase inhibition may include salivation, sweating, headache, nausea, muscle twitching, tremors, poor coordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort.

#### Medical Conditions Likely to be Aggravated by Exposure

None known

#### Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases

#### Unusual Fire, Explosion, and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
EPTC (87.8%)	Not Listed	Not Listed	0.3 mg/m <sup>3</sup> TWA	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.

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## 4. FIRST AID MEASURES

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<b>If in eyes:</b>	<ul style="list-style-type: none"><li>· Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>· Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li><li>· Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>· Call a poison control center or doctor immediately for treatment advice.</li><li>· Have person sip a glass of water if able to swallow.</li><li>· Do not induce vomiting unless told to by a poison control center or doctor.</li><li>· Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>· Take off contaminated clothing.</li><li>· Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>· Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>· Move person to fresh air.</li><li>· If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>· Call a poison control center or doctor for further treatment advice.</li></ul>
<b>NOTE TO PHYSICIAN</b>	
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**

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## 5. FIRE FIGHTING MEASURES

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**Flashpoint (test method):** 200°F (TCC)

**Flammability:** Not applicable

**Fire Fighting Guidance**

Use dry chemical, foam or CO<sub>2</sub> extinguishing media. 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**

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

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## 6. ACCIDENTAL RELEASE MEASURES

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**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.

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## 7. HANDLING AND STORAGE

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**Precautions in storing**

Store the material in a well ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. 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 seeds, fertilizers or foodstuffs. Can be stored at temperatures as low as minus 50°F.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

### Mixers, Loaders, and Handlers exposed to the concentrate must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Chemical-resistant apron
- Chemical-resistant footwear and socks
- Protective eyewear

### In addition to the above PPE, persons Mixing and Loading into chemigation systems, must wear:

- 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.

### Applicators and other Handlers exposed to the dilute must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

### In addition to the above PPE, applicators using back-pack or hand-held equipment must wear:

- chemical-resistant gloves such as barrier laminate or nitrile rubber or neoprene rubber or viton

### In addition to the above PPE, applicators applying dry bulk fertilizers with a specialized truck designed to treat more than 80 acres, must wear:

- 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.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### ENGINEERING CONTROLS

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.
- Use a closed system that meets the requirements listed in the Worker Protection Standard for Agricultural Pesticides.

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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance:** Amber liquid

*Data indicated below refer to active ingredient: EPTC*

**Boiling Point:** 127°C/20 mmHg

**Specific Gravity/**

**Density:** 0.9546 (30°C)

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## 9. PHYSICAL AND CHEMICAL PROPERTIES cont.

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### Solubility in H<sub>2</sub>O

**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 × 10<sup>3</sup> mPa (25 °C)

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## 10. STABILITY AND REACTIVITY

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**Stability:** Stable under normal use and storage conditions  
**Hazardous**  
**Polymerization:** Will not occur  
**Decomposition**  
**Products:** Can decompose at high temperatures forming toxic gases.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity/Irritation Studies (Finished Product)

<b>Ingestion:</b>	Oral LD <sub>50</sub> (rat)	1,325 mg/kg body weight
<b>Dermal:</b>	Dermal LD <sub>50</sub> (rabbit)	2,750 mg/kg body weight
<b>Inhalation:</b>	Inhalation LC <sub>50</sub> (rat)	10.3 mg/l air – 4 hours
<b>Eye Contact:</b>	Moderately irritating (rabbit)	
<b>Skin Contact:</b>	Mildly irritating (rabbit)	

### Carcinogenic Potential

Not carcinogenic in rat or mouse tests

### Other Toxicity Information

This product is a cholinesterase inhibitor. Principal routes of exposure are skin absorption and inhalation. Severe cases of cholinesterase inhibition may lead to convulsions, pulmonary edema, respiratory failure and death.

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## 12. ECOLOGICAL INFORMATION

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This chemical is toxic to mammals. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

### Ecotoxicity data shown is for the active ingredient, EPTC.

96-hr LC<sub>50</sub> Cutthroat trout: >17 mg/L  
96-hr LC<sub>50</sub> Bluegill sunfish: >27 mg/L  
96-hr LC<sub>50</sub> Rainbow trout: >19 mg/L  
Slightly toxic to fish.

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## 13. DISPOSAL CONSIDERATION

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Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

### 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

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.

### FOR BULK AND MINI-BULK CONTAINERS

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.

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## 14. TRANSPORT INFORMATION

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### DOT Classification

Not Regulated

### International Maritime Organization

Not Regulated

### International Civil Aviation Organization

Not Regulated

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## 15. REGULATORY INFORMATION

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### SARA Title III Classification

Section 302/304:

Not applicable

Section 311/312:

Immediate (acute) health hazard

Delayed (chronic) 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

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

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## 16. OTHER INFORMATION

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### NFPA Hazard Ratings

Health: 2

Flammability: 2

Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

### Prepared By:

Gowan Company  
(800) 883-1844

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