



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

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

Emergency telephone number: (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

For medical emergency: (888) 478-0798

Product:	Eptam® 8-E	PCP Registration No.:	11284
Signal Word:	CAUTION	CAS No.:	759-94-4
Active Ingredient:	EPTC (800 g/L)		
Chemical Name:	S-ethyl dipropylthiocarbamate		
Chemical Class:	Thiocarbamate		

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Amber liquid
Odour: Organosulphurous

Symptoms of Acute Exposure

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

Medical Conditions Likely to be Aggravated by Exposure

None known.

Primary Routes of Exposure

Skin contact and inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

	Component	CAS No.	% by weight
Active Ingredient:	EPTC	759-94-4	80%

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.• Call a poison control centre or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control centre 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 centre or doctor.• Do not give anything by mouth to an unconscious person.
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 centre or doctor for treatment advice.
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 centre or doctor for further treatment advice.

NOTE TO PHYSICIANS

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): >97°C (Setaflash CC)

Fire Fighting Procedures

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 the 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.

Extinguishing Media

In case of fire, use dry chemical, foam or carbon dioxide (CO₂).

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.

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 under EXPOSURE CONTROLS/PERSONAL PROTECTION (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, or 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

Handling

Wash thoroughly with soap and water after handling. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material.

Storage

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. Keep container tightly closed when not in use. Do not store near seeds, fertilizers or foodstuffs. Can be stored at temperatures as low as -43.3°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 vapour 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 32 hectares, must wear:

- a NIOSH approved respirator with: an organic vapour 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 vapour 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Data indicated below refer to the active ingredient EPTC:

Boiling Point: 127°C/20 mm Hg

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.

Vapour Pressure

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

10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

Decomposition Products: Can decompose at high temperatures, forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Oral LD₅₀ (rat) 1325 mg/kg body weight

Dermal LD₅₀ (rabbit) 2750 mg/kg body weight

Inhalation LC₅₀ (rat) 10.3 mg/L air – 4 hours

Eye Contact (rabbit): Moderate irritation

Skin Contact (rabbit): Mild irritation

Carcinogenic Potential

Not carcinogenic in rat or mouse tests.

12. ECOLOGICAL INFORMATION

Summary of Effects

This chemical is toxic to mammals. Do not contaminate water when disposing of equipment wash waters 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 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 CONSIDERATIONS

Observe all labelled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into transfer or application equipment. Do not reuse container. Triple or jet rinse the container then offer for recycling or reconditioning. If offering for reconditioning, contact the manufacturer. If offering for recycling, remove all caps, labels and booklets and take to a pesticide container depot. Recycling sites are identified on the CropLife Canada (Clean Farms) website at: www.croplife.ca. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer or the provincial regulatory agency in case of spill, and for clean-up of spills.

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.

14. TRANSPORT INFORMATION

TDG Classification

Not regulated

International Maritime Organization

Not regulated

International Civil Aviation Organization

Not regulated

15. REGULATORY INFORMATION

WHMIS Classification

This product is registered under the Pest Control Products Act and has been prepared in accordance with the WHMIS requirements.

16. OTHER INFORMATION

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

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.

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