

# Material Safety Data Sheet



## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Product name:** EPTAM (R) SELECTIVE PRE-EMERGENT HERBICIDE

**Synonyms:** Crop Care MSDS No. 15873

**CAS-No.:**

**Molecular Formula:**

**Supplier:** Crop Care Australasia Pty Ltd

**ACN:** 061 362 347

**Street Address:** 77 Tingira Street  
Pinkenba  
Queensland 4008  
Australia

**Telephone:** + 61 7 3867 9100

**Facsimile:** + 61 7 3867 9110

**Emergency telephone number:** 1 800 033 111 (ALL HOURS)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Recommended use:** Thiocarbamate herbicide.

**Appearance:** Amber liquid with a hydrocarbon odour.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Eptam (EPTC)	759-94-4	77% (720 g/L)
Kerosene	8008-20-6	MED
Other ingredients determined not to be hazardous	-	LOW
	-	----
	-	100%

PROPORTION (% weight per weight):

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

## 3. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Worksafe Australia.

### Hazard Category

Xn Harmful

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## R-phrases(s)

R20/22

Harmful by inhalation and if swallowed.

R65

Harmful: May cause lung damage if swallowed.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

## Poisons Schedule (Aust)/Toxic Substance (NZ): S6

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 03 474 7000).

**Ingestion:** Rinse mouth with water. If swallowed, and if more than 15 minutes from a hospital, induce vomiting preferably using Ipecac Syrup APF. Never give anything by mouth to an unconscious patient. Seek immediate medical assistance.

**Eye contact:** Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Skin contact:** Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

**Notes to physician:** Anti-cholinesterase effects.

Treatment: Give 2 mg of atropine sulphate intramuscularly or, in severe cases, intravenously, repeated at 10-15 min intervals until dryness of the mouth occurs. When this response is achieved it is advisable to maintain a mild degree of atropinisation for 24 hours. If stopped too early pulmonary oedema may develop.

Atropine should not be given to a cyanosed patient.

Oximes such as 2-PAM are contra-indicated.

## 5. FIRE-FIGHTING MEASURES

**Specific hazards:** Combustible liquid.

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**Fire fighting further advice:** Combustible liquid. On burning will emit toxic fumes. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

**Suitable extinguishing media:** Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILLS:** Wear protective equipment to prevent skin and eye contamination. Contain - prevent contamination of drains and waterways. Use absorbent (soil, sand other inert material). Collect and seal in properly labelled containers for disposal.

**LARGE SPILLS:** Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Contain - prevent contamination of drains and waterways. Use absorbent (soil, sand other inert material). Collect and seal in properly labelled drums for disposal. If contamination of crops or waterways has occurred advise emergency services or Department of Agriculture.

## 7. HANDLING AND STORAGE

**Storage:** Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs and fertilisers.

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### National occupational exposure limits

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH).

However, Supplier recommended Hygiene Standard:

	TWA	
	ppm	mg/m <sup>3</sup>
EPTAM	-	0.3

\* Supplier recommended. (1)

The recommended hygiene standard (TWA) is the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Hygiene Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Engineering measures:** IN THE WORKPLACE: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Hygiene Standards. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (S), RESPIRATOR.

Code:G -Orica Personal Protection Guide No.1, 1998

**MANUFACTURE, PACKAGING AND TRANSPORT:** Avoid skin and eye contact and the inhalation of vapour. Wear overalls, safety glasses and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

**PREPARATION AND USE OF PRODUCT:** Avoid contact with eyes and skin. Do not inhale spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Amber liquid with a hydrocarbon odour.

**Solubility:** Emulsifiable in water.

Specific Gravity (20 C)	: 0.99	Melting Point (C)	: N App
Rel Vapour Density (air=1)	: >1	Boiling Point (C)	: N Av
Vapour Pressure (20 C)	: N Av	Decomp. Point (C)	: N Av
Flash Point (C)	: 82	Sublimation Point	: N App
Flammability Limits (%)	: N Av	pH	: N App
Autoignition Temp (C)	: N Av	Viscosity	: N Av
% Volatile by volume	: N Av	Evaporation Rate	: N Av
Solubility in water (g/L)	: N Av	(n-Butyl acetate=1)	
LogPow (Eptam)	: 3.2		

(Typical values only - consult specification sheet)

N Av = Not available

N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Stability:** Reacts with oxidising agents. Product is stable for at least 2 years under ambient storage conditions.

## 11. TOXICOLOGICAL INFORMATION

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No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled and overexposure occurs are:

## Acute Effects

**Ingestion:** Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is a greater likelihood of vomit entering the lungs and causing subsequent complications. Aspiration pneumonia (inflammation of the lung) may result.

**Eye contact:** May be an eye irritant.

**Skin contact:** Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

**Inhalation:** Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged unconsciousness.

## Long Term Effects

No information available for the product.

## Acute toxicity / Chronic toxicity

No LD50 data available for product. However for the constituent, EPTAM:

Oral LD50 (rat): >916 mg/kg. (1)

Dermal LD50 (rat): >2000 mg/kg. (2)

Inhalation LC50 (rat): 4.1 mg/L/4 hours. (3)

SKIN: Mild irritant (rabbit). Not a skin sensitiser (guinea pig). (1)

EYES: Mild irritant (rabbit). (1)

Rats fed 326 mg/kg for 21 days showed no symptoms other than excitability and loss of weight. (4)

Eptam produces mild cholinesterase inhibition in experimental animals. It has also been shown to effect blood clotting in laboratory animals. In lifetime studies in experimental animals EPTC caused nerve, muscle and heart muscle changes. (3)

Negative in IN VITRO mutagenicity assays.

ADI (Acceptable Daily Intake) for humans is 0.09 mg/kg/day. (5)

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Toxic to aquatic organisms.

96hr LC50 (rainbow trout): 19 mg/L. (1)

98hr LC50 (bluegill sunfish): 14 mg/L. (1)

48hr EC50 (Daphnia magna): 14 mg/L. (4)

LogPow is 3.2 (4)

Risk of bioaccumulation in an aquatic species is high.

TERRESTRIAL TOXICITY

7 day Dietary LC50 (bobwhite quail): 20,000 mg/kg. (4)

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Toxic to bees. LD50 (bee): 0.011 mg/bee. (4)

## ENVIRONMENTAL FATE, PERSISTENCE AND DEGRADATION:

Eptam undergoes rapid microbial degradation in soil. Decomposes in 4-6 weeks in warm, moist soils. (4)

### 13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

### 14. TRANSPORT INFORMATION

#### Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

#### Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

#### Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

### 15. REGULATORY INFORMATION

This material is hazardous according to health criteria of Worksafe Australia.

#### **Hazard Category**

Xn Harmful

#### **R-phrases**

R20/22 Harmful by inhalation and if swallowed.  
R65 Harmful: May cause lung damage if swallowed.

#### **S-phrases**

S24 Avoid contact with the skin.  
S13 Keep away from food, drink and animal foodstuffs.  
S36/37 Wear suitable protective clothing and gloves.  
S38 In case of insufficient ventilation, wear suitable respiratory equipment.

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Poisons Schedule (Aust)/Toxic Substance (NZ): S6

## 16. OTHER INFORMATION

### Literary reference

- (1) Material Safety Data Sheet - Eptam (CDS 15874)  
Zeneca Agrochemicals.
- (2) In 'Registry of Toxic Effects of Chemical Substances'. Ed D Sweet.  
US Department of Health and Human Services, Cincinnati, 2000.
- (3) Stauffer Chemical Unpublished Report - Summary of toxicity of  
Eptam.
- (4) In 'The Pesticide Manual'. 11th Edition. Ed CDS Tomlin. British  
Crop Protection Society, 1997.
- (5) ADI List, Commonwealth Department of Health and Family Services.  
01/2000.

This Material Safety Data Sheet has been prepared by SHE Pacific Pty Ltd on behalf of its clients.

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Reason(s) For Issue: ALIGNMENT TO WORKSAFE REQUIREMENTS

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Orica Limited and its subsidiaries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.