



Material Safety Data Sheet

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Issue date: February 2010

ERAPOL ET75D

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ERAPOL ET75D

Synonym: NONE

Use: POLYURETHANES

Era Polymers Pty Ltd
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Banksmeadow NSW 2019
Australia
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Emergency Advice All Hours:
Technical Manager +61 2 9666 3788

2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO NOHSC CRITERIA

Hazard Category: Toxic (T), Irritant (Xi)

Hazard Classification: HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD

RISK PHRASES

R23 Toxic by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation and skin contact.

SAFETY PHRASES

S23 Do not breathe gas/fumes/vapour/spray
S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre.
S28 After contact with skin, wash immediately with plenty of soap and water
S38 In case of insufficient ventilation, wear suitable respiratory protection.
S44 If you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible).
S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.

Poison Schedule: S6 [Aust]

This material is a Scheduled **S6** Poison and must be stored, handled and used according to the appropriate regulations..

Warning Statement:

Sensitizer

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
PREPOLYMER TDI/PTMEG	Greater than 60% Mixture	
TOLUENE DIISOCYANATE [TDI] (Mixture of isomers)	1 to 10%	26471-62-5

All other ingredients not hazardous according to NOHSC Criteria.



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4. FIRST AID MEASURES

Swallowed:

If swallowed, DO NOT induce vomiting. If person is conscious give water to drink. Seek medical attention immediately.

Eye:

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eyelids are held open. If irritation persists seek medical attention.

Skin:

If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with water and soap. Flush skin with water. Seek medical attention if irritation persists after washing.

Inhaled:

Remove victim to fresh air. Apply resuscitation if victim is not breathing. If trained personnel available administer oxygen if breathing is difficult.

First Aid Facilities:

Eye wash fountain, safety shower and normal washroom facilities.

Advice to Doctor:

Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

In Australia call Tel: 131126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

If safe to do so, move undamaged containers from fire area.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposes on heating emitting toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

FIRE FIGHTING PROCEDURES: Fire fighters to wear Self-Contained Breathing Apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

EXTINGUISHING MEDIA: Use extinguishing media suitable for surrounding fire situation. Use foam, water spray (fog), CO₂ or dry powder. Use water spray to cool fire-exposed containers and for large fires.

HAZCHEM CODE: None allocated [Aust]

FLAMMABILITY

This product is not flammable.

6. ACCIDENTAL RELEASE MEASURES

All spills should be attended to immediately. Evacuate from the immediate area everyone not essential to dealing with the spill, and keep them upwind to avoid breathing vapour. Isolate the area and prevent access. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. Control the source of the leak, where possible. Ventilate area. Contain the spill to prevent further spread of material and prevent run off into drains and waterways. Use absorbent material such as wet sand, wet earth, wet sawdust or absorbent clays. These



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materials will not only contain the spill, but also absorb and partially neutralise the diisocyanate content of the material. Neutralise used absorbent materials and any remaining product with neutraliser (see below) and decontaminate all surfaces and equipment that have been in contact. Dispose of all clean-up materials in accordance with government regulations.

Neutraliser formulations include:

- (a) surfactant 1 - 20% and water to make up to 100%;
- (b) liquid surfactant 0.2 - 2%, sodium carbonate 5 - 10%, and water to make up to 100%;
- (c) liquid surfactant 0.2 - 2%, concentrated ammonia 3 - 8% and water to make up to 100%.

7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from oxidising agents. Keep containers closed when not using the product. Store in original packages as approved by manufacturer. Purge with nitrogen and close container when not in use. Do not eat, drink or smoke in the workplace.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by [NOHSC] to the following components of the product:

PREPOLYMER TDI/PTMEG

No Exposure details available

TOLUENE DIISOCYANATE [TDI] (Mixture of isomers)

(Worksafe Australia)

[TWA]0.02 mg/m³

[STEL]0.07 mg/m³

Notices: Sen

References: A

Engineering Controls

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate unless the material is heated, reacted or otherwise changed in some type of chemical reaction, then the use of a local exhaust ventilation system is recommended. If exhaust ventilation is not available or inadequate, use approved respirator to Australian Standards.

Personal Protection Equipment

CLOTHING: Wear suitable protective clothing to prevent skin contact.

GLOVES: Wear impervious gloves to prevent skin contact - PVC or natural rubber.

EYES: Wear safety glasses with side shields, chemical goggles or face shield to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of vapours/gases. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a respirator for organic vapours with disposable or with replaceable filters is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous liquid

Boiling Point Melting Point: Not determined

Vapour Pressure: Not determined



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Specific Gravity: 1.1
Flash Point: Not determined
Flammability Limits: Not determined
Solubility in Water: Reacts with water liberating carbon dioxide

Other Properties

nco = 11-11.4 %

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Emits smoke and fumes when heated to decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong alkalis, acids, oxidizing agents.

CONDITIONS TO AVOID:

Heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

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

ACUTE HEALTH EFFECTS:

Swallowed:

May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

Eye:

Will cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision. Depending upon duration of exposure, eye damage may occur.

Skin:

Will cause irritation to the skin, with effects including; Redness, itchiness, and possible dermatitis.

Inhaled:

Toxic if inhaled.

Will cause irritation to the nose, throat and respiratory system with effects including: Dizziness, headache, coughing, loss of co-ordination and chest pains.

Chronic:

Prolonged or repeated skin contact may lead to dermatitis.

Prolonged contact may cause severe eye irritation and some form of permanent eye damage may occur.

Prolonged or repeated exposure may lead to irreversible damage to health.

Prolonged or repeated exposure or deliberately concentrating and inhaling the vapour(s) may result in lung function incapacity or death.

Prolonged or repeated contact with this substance will cause sensitisation by inhalation.

Toxicological Data:

There is no other toxicological information available for this product.



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12. ECOLOGICAL INFORMATION

Ecotoxicity:

There is no information available for this product.

Information for Ingredient(s):

Toluene diisocyanate generally shows low toxicity to a wide range of water and soil based species: bacteria, algae, invertebrates, fish, earthworms, plants and birds.

Algae: EC50, 96 hour (*Chlorella vulgaris*, freshwater) = 4300 mg/L

Invertebrates: EC50, 48 hour (*Daphnia magna*, freshwater) = 12.5 mg/L

Fish: LC0, 96 hour (*Brachydanio rerio*, freshwater) \geq 100 mg/L

Birds: LD50 (*Agelaius phoeniceus* & *Sturnus vulgaris*) \geq 100 mg/kg

Mobility:

The product is insoluble in water and does not disperse readily. It reacts with water forming polyurea, which is solid, insoluble and stable in the environment to both chemical and biological attack.

Persistence / Degradability:

This substance is not persistent in the environment as it reacts with water or moisture in the air. The reaction product, an inert, insoluble polyurea, is not readily degradable.

Chemical Fate Information:

There is limited ecological information available for this product, however, large quantities should not be discharged into drains, sewers or waterways.

13. DISPOSAL CONSIDERATIONS

Do not allow into any sewers, drains, on the ground or into any body of water. Any disposal must be in accordance with applicable State, Territory and/or Local government regulations.

Product Waste: The disposal of large quantities of product should normally be undertaken only by a specialist contractor. The product may be incinerated in a suitable facility, however consult with local authorities before doing so to ensure that all local regulations are observed.

In the case of only a small quantity of product waste, the following method may be applied, with caution, by a technically competent person: The waste product is reacted with an excess of Polyol to form a foam or solid polyurethane. The product of the reaction can then be incinerated or disposed of in landfill. This process should be carried out slowly in an open drum to avoid rapid heat generation and release of gases.

Container Disposal: Any disposal of contaminated packaging and washings must be in accordance with State, Territory and/or Local government regulations. When containers/drums have been drained to leave as little residue as possible, either seal the drum and send it to a drum-handling specialist, or decontaminate the drum using a slow reacting water-based neutraliser (see below). Add (several centimetres of) neutraliser to the drum, slowly shake and roll to allow contact. Leave open until all reaction is completed, then dispose of drum and washings in approved manner. If the container is to be reconditioned, the reconditioning company should be made aware of the nature of the original contents.

Neutraliser formulations:

(a) surfactant 1-20% and water to make up to 100%;

(b) liquid detergent 2%, PEG400 35% and water to make up to 100%.



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AS/NZS 1716 - Respiratory protective devices. [Aust/NZ]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian New Zealand

[Int] = International

[US] = United States of America

Removal of the heading of *Poison Schedule [Aust]*, in section 3 and 15 of this Material Safety Data Sheet (MSDS) makes this a valid health and safety document in other international jurisdictions/countries. For full compliance please contact your Federal, State or Local regulators for further information.

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information available on the product and the measures to be used to handle and use the product safely. Each user should read this MSDS and consider the information in connection with the way the product is intended to be handled or used.

Principal References:

Information supplied by manufacturer, reference sources including the public domain.

END OF MSDS