



MATERIAL SAFETY DATA SHEET

UREPAC™ BOND 4 60

1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Pacific Urethanes Pty Ltd
18, Malibu Circuit,
Carrum Downs
Victoria, 3201

Phone: 1300 736 963
Specialist Advice: 0421 755 555

Hazardous according to the criteria of WorkSafe Australia.

UN No:	Not applicable	D.G.CLASS:	Not applicable	IMDG:	Not applicable
HAZCHEM:	Not applicable	SUB.RISK:	Not applicable	CAS No:	MIXTURE
G.T.EPG:	Not applicable	PACK. GRP:	Not applicable	SUSDP:	6 (FED)
SPEC.EPG:	Not applicable				

2 HAZARDS IDENTIFICATION

R20: Harmful by Inhalation
R36/37/38: Irritating to eyes, respiratory system & skin
R42/43: May cause sensitization by inhalation & skin contact.
R48/20: Harmful: danger of serious damage to health through prolonged exposure through inhalation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>Amount</u>	<u>CAS Number</u>
Polyurethane Prepolymer containing –NCO groups:	40-50%	25322-69-4
Tertiary Amine:	<1%	trade secret
Dichloromethane:	<60%	75-09-2
Ethyl Acetate:	<5%	141-78-6
Toluene:	<5%	108-88-3

4 FIRST AID MEASURES

If inhaled:

Remove from exposure to fresh air

For all but most minor symptoms seek medical attention immediately

In case of eye contact:

Immediately flush eyes with plenty of water.

Seek medical attention immediately

In case of skin contact:

Remove material from skin by washing with soap and water.

Seek medical attention if irritation persists

Remove & discard contaminated clothing

If swallowed:

Do not give fluids or induce vomiting.

Seek medical attention immediately

Advice to Doctor:

May cause respiratory sensitization or asthma-like symptoms

Bronchodilators, expectorants and antitussives may be of help

Respiratory symptoms, including pulmonary oedema, may be delayed

Persons receiving significant exposure should be observed for 24-48 hours for signs of respiratory distress

No specific antidote. Supportive care.

Treatment based on judgment of the physician in response to reactions of the patient.

5 FIRE / EXPLOSION HAZARDS

Fire Extinguishing Media: Water fog or fine spray, foam, carbon dioxide or dry chemical powder.

Hazardous Combustion Products: During a fire smoke may contain original material in addition to combustion products of varying composition which might be toxic and/or irritating.

Unusual Hazard: Product reacts with water. Reaction may be violent and produce heat and/or gases

Advice for Firefighters: Keep people away, isolate fire & deny unnecessary entry. Wear positive-pressure SCBA and chemical-resistant clothing.

ACCIDENTAL RELEASE MEASURES

Minor Spills:

Clean up all spills immediately.

Absorb the spilt material with a suitable adsorbent material.

Remove the adsorbent and waste into open-top containers.

Decontaminate with a mixture of: 90 parts water; 8 parts Ammonia; 2 parts Methanol.

Wash the area with Decontaminant Solution.

Wear suitable cartridge filter mask (complying with AS/NZS 1716) and protective clothing.

Major Spills

Wear full protective equipment, including suitable cartridge filter mask (complying with AS/NZS 1716) and impervious footwear (rubber safety boots)

Clear area of all unprotected personnel

Increase ventilation

Contain spilled material. Absorb with materials such as sand, earth or vermiculite.

Collect in open labeled drums for disposal. Do not make pressure tight.

Wash spill site with large volumes of water.

Decontaminate and neutralize area and equipment with decontaminant solution.

7 HANDLING AND STORAGE

General Handling: Avoid breathing vapour. Avoid contact with eyes, skin & clothing. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container tightly closed.

Storage: Store in a dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction. Recommended storage temperature 20 – 35C. Additional information on request.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Standard (ES) for Isocyanates:
5 ppb TWA as –NCO. 20 ppb STEL as –NCO. SEN.

ES = Exposure Standard for Atmospheric Contaminants in the Occupational Environment, published by WorkSafe Australia.

TWA = Time weighted average exposure – 8 hour period

STEL = Short-Term Exposure Limit.

SEN = Potential to cause Sensitization.

Exposure Controls:**Personal Protection:**

Eye protection: use approved chemical glasses or goggles.

Skin protection: Use Chemical resistant clothing such as face shield, boots, full body suit dependent on task at hand.

Hand protection: through chemical resistant gloves (butyl or nitrile rubber)

When exposure guideline exceeded, use air-purifying respirator equipped with organic vapour sorbent and a particle filter. At higher levels or in emergency response or when atmospheric level is unknown, use approved positive-pressure SCBA.

Maintain good personal hygiene in workplace, do not consume or store food and drink in work area. Wash hands before smoking, eating and drinking.

Engineering Controls

Use only with adequate ventilation. Provide general and/or local exhaust ventilation to control airborne levels below exposure limits, particularly when product is heated above 40°C. Exhaust systems should be designed to move air away from source of vapour/aerosol generation and people working at that point.

Note that the odour and irritancy of this material is insufficient to warn of excessive exposure.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Violet Liquid
Odour:	None
Vapour Pressure @ 25°C:	Negligible
Vapour Density:	No data
Specific Gravity:	1.10 @ 25°C
Auto-ignition temp:	>400°C
Solubility in water:	Insoluble, reacts with evolution of CO ²

10 STABILITY AND REACTIVITY

Reactivity: Reacts vigorously with water and other materials containing free hydroxyl groups, producing carbon dioxide. No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Can occur. Elevated temperatures can cause hazardous polymerization. Polymerisation can be catalyzed by strong bases and water.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water releasing CO² which can cause

pressure build-up and rupture of closed containers. Elevated temperatures can accelerate this reaction.

Incompatible Materials: Avoid contact with: acids, alcohols, amines, water, ammonia, bases, metal compounds, moist air, strong oxidizing agents. Di-isocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact: these reactions can become violent. Di-isocyanates are not soluble in water and sink to the bottom, reacting slowly at the interface. The reaction forms heat CO² gas and a layer of solid Polyurea. Avoid contact with aluminium, brass, copper, tin, zinc and galvanized metals.

Hazardous decomposition products: Gases are released but depend upon temperature, air supply and presence of other materials.

11 TOXICOLOGICAL INFORMATION

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling are not likely to cause injury; however swallowing large amounts may cause injury.

Typical for this family of materials. Acute Oral LD50 (rat) >10,000 mg/kg.

Dermal: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Typical for this family of materials. LD50 (rabbit) >2,000 mg/kg

Inhalation: At room temperatures, vapours are minimal due to low volatility, however a vapour hazard will arise when the product is heated above 40°C or reacted in a confined or unventilated area. Inhalation of mists or aerosols can produce respiratory irritation, may cause sensitisation or asthma like systems.

Eye damage/eye irritation: May cause moderate eye irritation. May cause slight temporary corneal injury.

12 ECOLOGICAL INFORMATION

Environmental Protection

Avoid contaminating waterways, drains, sewers or ground.

Toxicity:

Material is not classified as dangerous to aquatic organisms.

Degradation & Persistence: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

13 DISPOSAL CONSIDERATIONS

- ◆ **Refer to State Land Waste Management Authority.**
- ◆ Empty containers must be decontaminated.
- ◆ Normally suitable for incineration by approved agent.

14 TRANSPORT INFORMATION

- ◆ Classified as a Non-Dangerous Substance for the purpose of transport.
- ◆ Refer to State Regulations for storage and transport requirements.
- ◆ Product is labeled in accordance with the Code of Practice for Labeling Workplace Substances. Product repackaged for public consumer use should be labeled in accordance with the current standard for Uniform Scheduling of Drugs & Poisons (SUSDP), Part 2.

15 REGULATORY INFORMATION

The components of this product are on AICS register

Safety Phrases:

S23: Do not breathe vapour/gas/fumes/spray

S36/37: Wear Suitable Protective Clothing & Gloves

16 OTHER INFORMATION

Additional information on this product may be obtained by calling your sales or customer service contact.

Revised: August 2015

Pacific Urethanes Pty Ltd urges each customer or recipient of this MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this MSDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However no warranty, express or implied, is given. It is the user's responsibility to ensure that his activities comply with all federal, state & local laws. The information presented here pertains only to the product as shipped. Since the conditions for use of the product are not under the control of the supplier, it is the user's duty to determine the conditions necessary for the safe use of this product.