

# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 1 of 7

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

TITE-R-BOND

### SYNONYMS

"Tite-R-Bond GL 2287A", "primer promoter PZQ-6533010

### PROPER SHIPPING NAME

ETHYL ACETATE

### PRODUCT USE

■ The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing.

Before starting consider control of exposure by mechanical ventilation.  
Primer / promoter for adhesives. Used for the preparation of plastics, metals and painted surfaces.

### SUPPLIER

Company: Foam Sealant Pty Ltd  
Address:  
48- 52 Micro Circuit  
Dandenong South  
VIC, 3175  
AUS  
Telephone: +61 3 9702 9989  
Fax: 03 9799 6304

## Section 2 - HAZARDS IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

### POISONS SCHEDULE

None

### RISK

Risk Codes

R11

R36

R45(2)

R63(3)

R65

R66

R67

Risk Phrases

- Highly flammable.
- Irritating to eyes.
- May cause CANCER.
- Possible risk of harm to the unborn child.
- HARMFUL- May cause lung damage if swallowed.
- Repeated exposure may cause skin dryness and cracking.
- Vapours may cause drowsiness and dizziness.

### SAFETY

Safety Codes

S01

S36

S38

S51

S401

S35

S13

S60

Safety Phrases

- Keep locked up.
- Wear suitable protective clothing.
- In case of insufficient ventilation wear suitable respiratory equipment.
- Use only in well ventilated areas.
- To clean the floor and all objects contaminated by this material use water and detergent.
- This material and its container must be disposed of in a safe way.
- Keep away from food drink and animal feeding stuffs.
- This material and its container must be disposed of as hazardous waste.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethyl acetate	141-78-6	>60
toluene	108-88-3	1-9
acrylic acid homopolymer	9003-01-4	1-9^
isopropanol	67-63-0	<1^

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# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 2 of 7

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

propylene imine	75-55-8	<0.1
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## Section 4 - FIRST AID MEASURES

### SWALLOWED

- - For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

### EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

### SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

### INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

### NOTES TO PHYSICIAN

- Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- - Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

### FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
  - May be violently or explosively reactive.
  - Wear breathing apparatus plus protective gloves.
  - Prevent, by any means available, spillage from entering drains or water course.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 1000 metres in all directions.

### FIRE/EXPLOSION HAZARD

- - Liquid and vapour are highly flammable.
  - Severe fire hazard when exposed to heat, flame and/or oxidisers.
  - Vapour forms an explosive mixture with air.
  - Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Other combustion products include: carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>).

### FIRE INCOMPATIBILITY

- Avoid contamination with strong oxidising agents as ignition may result.

### HAZCHEM

●3YE

### PERSONAL PROTECTION

Glasses:  
Safety Glasses.

Gloves:  
PVC chemical resistant type.

Respirator:  
Type AX Filter of sufficient capacity

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# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 3 of 7

## Section 6 - ACCIDENTAL RELEASE MEASURES

### MINOR SPILLS

- - Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.

### MAJOR SPILLS

- - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- - Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

### SUITABLE CONTAINER

- - Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Segregate from strong oxidisers and strong alkalis.

### STORAGE REQUIREMENTS

- - Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	Notes
Australia Exposure Standards	ethyl acetate (Ethyl acetate)	200	720	400	1440	
Australia Exposure Standards	toluene (Toluene)	50	191	150	574	Sk
Australia Exposure Standards	isopropanol (Isopropyl alcohol)	400	983	500	1230	
Australia Exposure Standards	propylene imine (Propylene imine)	2	4.7			Sk

The following materials had no OELs on our records

- acrylic acid homopolymer: CAS:9003- 01- 4

### PERSONAL PROTECTION

#### RESPIRATOR

Type AX Filter of sufficient capacity

#### EYE

- - Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

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# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 4 of 7

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### HANDS/FEET

■ - Barrier cream with polyethylene gloves or - Butyl rubber gloves Wear chemical protective gloves, eg. PVC.  
Wear safety footwear.

### OTHER

■ - Overalls.  
- Eyewash unit.

### ENGINEERING CONTROLS

■ Use in a well-ventilated area.  
General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Slightly cloudy, highly flammable liquid with a sweet solvent odour; partly mixes with water. Solubility in water: 8%. Soluble in xylene and methyl ethyl ketone (MEK).

### PHYSICAL PROPERTIES

Liquid.  
Does not mix with water.  
Floats on water.

State	Liquid	Molecular Weight	Not available
Melting Range (°C)	Not available	Viscosity	Not Available
Boiling Range (°C)	77	Solubility in water (g/L)	Partly miscible
Flash Point (°C)	- 3 (PMCC)	pH (1% solution)	Not applicable.
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not applicable
Autoignition Temp (°C)	427 ethyl acet.	Vapour Pressure (kPa)	10.1 @ 20 C
Upper Explosive Limit (%)	11.0	Specific Gravity (water=1)	0.89
Lower Explosive Limit (%)	2.2	Relative Vapour Density (air=1)	3.0
Volatile Component (%vol)	98.5	Evaporation Rate	6.15 BuAc=1

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

■ - Presence of incompatible materials.  
- Product is considered stable.  
- Hazardous polymerisation will not occur.  
*For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

■ Irritating to eyes.  
■ HARMFUL- May cause lung damage if swallowed.  
■ Can be absorbed through skin.  
  
■ Vapours may cause dizziness or suffocation.  
■ Vapours may cause drowsiness and dizziness.

#### CHRONIC HEALTH EFFECTS

■ May cause CANCER.  
■ Possible risk of harm to the unborn child.  
  
■ Repeated exposure may cause skin dryness and cracking.

### TOXICITY AND IRRITATION

#### TOLUENE:

#### PROPYLENE IMINE:

#### ETHYL ACETATE:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ Not available. Refer to individual constituents.

#### ETHYL ACETATE:

#### TOXICITY

Oral (rat) LD50: 5620 mg/kg

#### IRRITATION

Eye (human): 400 ppm

continued...

# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 5 of 7  
Section 11 - TOXICOLOGICAL INFORMATION

Inhalation (rat) LC50: 1600 ppm/8h  
Inhalation (human) TCLo: 400 ppm  
Inhalation (Human) TCLo: 400 ppm/4h  
Oral (Mouse) LD50: 4100 mg/kg  
Intraperitoneal (Mouse) LD50: 709 mg/kg  
Oral (Rabbit) LD50: 4935 mg/kg  
Oral (Guinea pig) LD50: 5500 mg/kg

## TOLUENE:

### TOXICITY

Oral (human) LDLo: 50 mg/kg  
Oral (rat) LD50: 636 mg/kg  
Inhalation (human) TCLo: 100 ppm  
Inhalation (man) TCLo: 200 ppm  
Inhalation (rat) LC50: >26700 ppm/1h  
Dermal (rabbit) LD50: 12124 mg/kg

### IRRITATION

Skin (rabbit):20 mg/24h- Moderate  
Skin (rabbit):500 mg - Moderate  
Eye (rabbit):0.87 mg - Mild  
Eye (rabbit): 2mg/24h - SEVERE  
Eye (rabbit):100 mg/30sec - Mild

■ The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis.

For toluene:

### Acute Toxicity

Humans exposed to intermediate to high levels of toluene for short periods of time experience adverse central nervous system effects ranging from headaches to intoxication, convulsions, narcosis, and death. Similar effects are observed in short-term animal studies.<</>.

## PROPYLENE IMINE:

### TOXICITY

Oral (rat) LD50: 19 mg/kg  
Intraperitoneal (mouse) LD50: 355 mg/kg

### IRRITATION

Eye (rabbit):0.25 mg(open)SEVERE

Skin (guinea) pig: LD50 43 mg/kg

■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

Propyleneimine is a carcinogen in animals and is considered a potential

human carcinogen. This chemical has also produced corneal injury when tested in the eyes of rabbits. Exposure of rats to 500 ppm of PI vapor for four hours was fatal, but inhalation for two hours resulted in no deaths. Rats administered 20 mg/kg of PI orally twice per week suffered from advanced flaccid paralysis after 18 weeks along with a high mortality rate. At 10 mg/kg PI, paralysis occurred to a lesser extent after 30 weeks. Granulocytic leukemia, squamous cell carcinoma of the ear duct, brain tumors, and mammary adenocarcinomas (females only) were observed in different animals. A number of the observed mammary adenocarcinomas metastasized to the lungs.

## CARCINOGEN

Toluene	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3
2- Methylaziridine (Propyleneimine)	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B

## REPROTOXIN

toluene	ILO Chemicals in the electronics industry that have toxic effects on reproduction	Reduced fertility or sterility
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## SKIN

toluene	Australia Exposure Standards - Skin	Notes	Sk
propylene imine	Australia Exposure Standards - Skin	Notes	Sk

## Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

### Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
ethyl acetate	LOW	HIGH	MED	HIGH
toluene	LOW	MED	LOW	MED
propylene imine	LOW	LOW	LOW	HIGH

continued...

# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 6 of 7

## Section 13 - DISPOSAL CONSIDERATIONS

- - Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

## Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID

### HAZCHEM:

●3YE (ADG7)

### ADG7:

Class or division:	3	Subsidiary risk:	None
UN No.:	1173	UN packing group:	II
Special provisions:	None	Packing Instructions:	None
Limited quantities:	1 L	Portable tanks and bulk containers - Instructions:	T4
Portable tanks and bulk containers - Special provisions:	TP1	Packagings and IBCs - Packing instruction:	P001; IBC02
Packagings and IBCs - Special packing provisions:	None		

Shipping Name:ETHYL ACETATE ETHYL ACETATE

### Land Transport UNDG:

Class or division:	3	Subsidiary risk:	None
UN No.:	1173	UN packing group:	II

Shipping Name:ETHYL ACETATE ETHYL ACETATE

### Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1173	Packing Group:	II
Special provisions:	None		

Shipping Name: ETHYL ACETATE

### Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1173	Packing Group:	II
EMS Number:	F- E , S- D	Special provisions:	None
Limited Quantities:	1 L		

Shipping Name: ETHYL ACETATE

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE

None

### REGULATIONS

Regulations for ingredients

#### ethyl acetate (CAS: 141-78-6) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

#### toluene (CAS: 108-88-3) is found on the following regulatory lists;

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)", "Australia - Australian Capital Territory Environment Protection Regulation Ecosystem maintenance - Organic chemicals - Non-pesticide anthropogenic organics", "Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Domestic water quality", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Illicit Drug Reagents/Essential Chemicals - Category III", "Australia Inventory of Chemical Substances (AICS)", "Australia National

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# TITE-R-BOND

Chemwatch Independent Material Safety Data Sheet  
Issue Date: 23-Apr-2010  
C9317EC

CHEMWATCH 4919-44  
Version No:5  
CD 2010/1 Page 7 of 7  
Section 15 - REGULATORY INFORMATION

Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix I", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "OECD Representative List of High Production Volume (HPV) Chemicals", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control - Table II", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

**propylene imine (CAS: 75-55-8) is found on the following regulatory lists;**

"Australia - Queensland Hazardous Materials and Prescribed Quantities for Major Hazard Facilities", "Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List", "International Chemical Secretariat (ChemSec) REACH SIN\* List (\*Substitute It Now!) 1.0"

**No data for Tite-R-Bond (CW: 4919-44)**

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## Section 16 - OTHER INFORMATION

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■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.  
A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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*This is the end of the MSDS.*