



# Rhino Linings®

## PREMIUM PROTECTION

### TUFF STUFF B-SIDE

Chemwatch Material Safety Data Sheet  
Issue Date: 14-Oct-2008  
C9317EC

CHEMWATCH 4944-80  
Version No:4  
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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

TUFF STUFF B-SIDE

### SYNONYMS

"Tuff Stuff - Part B, Resin Polyurethane spray coating, curative side Product Code: Part # TS10062 - 62kg, TS10204 - 204kg"

### PRODUCT USE

Component B of a polyurethane lining formulation. Always use in admixture with component A.

### SUPPLIER

Company: Rhino Linings Australasia Pty Ltd  
Address:  
501- 505 Olsen Avenue  
Molendinar  
QLD, 4214  
AUS  
Telephone: +61 7 5585 7000  
Fax: +61 7 5539 6399

## Section 2 - HAZARDS IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

### POISONS SCHEDULE

None

### RISK

- » Harmful to aquatic organisms may cause long- term adverse effects in the aquatic environment.
- » Cumulative effects may result following exposure\*.
- » May produce discomfort of the eyes\*.

- » Possible respiratory sensitiser\*.
  - » Possible skin sensitiser\*.
  - » May be harmful to the foetus/ embryo\*.
- \*(limited evidence).

### SAFETY

- » Do not breathe gas/fumes/vapour/spray.
- » Avoid exposure - obtain special instructions before use.
- » In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
polyethylene/ polypropylene glycol glyceryl ether	9082-00-2	>60
diethylene glycol	111-46-6	0-14
diethyltoluenediamine	68479-98-1	<3

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## Section 4 - FIRST AID MEASURES

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### SWALLOWED

- » - If swallowed do NOT induce vomiting. Seek medical advice.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

### 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.
- Prostheses 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.

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## Section 5 - FIRE FIGHTING MEASURES

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### 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.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.

### FIRE/EXPLOSION HAZARD

- » - Combustible.
  - Slight fire hazard when exposed to heat or flame.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Other combustion products include:  
carbon dioxide (CO<sub>2</sub>).  
other pyrolysis products typical of burning organic material and amines.

### FIRE INCOMPATIBILITY

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

HAZCHEM: None

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

- » Slippery when spilt.
- 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

- » Slippery when spilt.
- Minor hazard.
- Clear area of personnel and move upwind.

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- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.

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

- » - Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- » Avoid storage with oxidisers.

### STORAGE REQUIREMENTS

- » Store out of direct sunlight.
- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>
Australia Exposure Standards	diethylene glycol (2, 2' - Oxybis[ethanol])	23	100

The following materials had no OELs on our records

- polyethylene/ polypropylene glycol glyceryl ether:
- diethyltoluenediamine:

CAS:9082- 00- 2  
CAS:68479- 98- 1

### PERSONAL PROTECTION

#### RESPIRATOR

Type AK-P 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].

#### HANDS/FEET

- » Wear chemical protective gloves, eg. PVC.
- Wear safety footwear.

#### OTHER

- » - Overalls.
- Eyewash unit.

#### ENGINEERING CONTROLS

- » General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Pale yellow liquid with a slight odour; does not mix with water.

### PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Sinks in water.

Molecular Weight: Not applicable  
Melting Range (°C): Not available  
Solubility in water (g/L): Immiscible  
pH (1% solution): Not applicable  
Volatile Component (%vol): Not available  
Relative Vapour Density (air=1): >1  
Lower Explosive Limit (%): Not available  
Autoignition Temp (°C): Not available  
State: Liquid

Boiling Range (°C): >200  
Specific Gravity (water=1): 1.04  
pH (as supplied): Not applicable  
Vapour Pressure (kPa): Not available  
Evaporation Rate: <1 Ether=1  
Flash Point (°C): >150 PMCC  
Upper Explosive Limit (%): Not available  
Decomposition Temp (°C): Not available  
Viscosity: Not Available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

» - Presence of incompatible materials.

- Presence of heat source.

Product is considered stable under normal handling conditions.

Stable under normal storage conditions.

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

» May produce discomfort of the eyes\*.

» \* (limited evidence).

#### CHRONIC HEALTH EFFECTS

» Possible respiratory sensitiser\*.

» Possible skin sensitiser\*.

» May be harmful to the foetus/ embryo\*.

» Cumulative effects may result following exposure\*.

» \* (limited evidence).

### TOXICITY AND IRRITATION

» Not available. Refer to individual constituents.

#### POLYETHYLENE/ POLYPROPYLENE GLYCOL GLYCERYL ETHER:

» No significant acute toxicological data identified in literature search.

#### DIETHYLENE GLYCOL:

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

#### TOXICITY

Oral (human) LDLo: 1000 mg/kg

Oral (rat) LD50: 12565 mg/kg

Dermal (rabbit) LD50: 11890 mg/kg

» 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 epidermis.

#### IRRITATION

Skin (human): 112 mg/3d- I Mild

Skin (rabbit): 500 mg Mild

Eye (rabbit) 50 mg Mild

#### DIETHYLTOLUENEDIAMINE:

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

#### TOXICITY

Oral (rat) LD50: 470- 540 mg/kg

Dermal (rabbit) LD50: >700 mg/kg

Inhalation (rats) LD50: >2.45 mg/l [Manufacturer]

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

p-Phenylenediamines are oxidised  
oxidized.

by the liver microsomal enzymes (S9). Pure p-phenylenediamine is non-mutagenic in but becomes mutagenic after it is

#### IRRITATION

Skin (rabbit): slight

Eye (rabbit): moderate- SEVERE

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## Section 12 - ECOLOGICAL INFORMATION

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Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## Section 13 - DISPOSAL CONSIDERATIONS

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- » - 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.
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## Section 14 - TRANSPORTATION INFORMATION

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HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

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## Section 15 - REGULATORY INFORMATION

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**POISONS SCHEDULE: None**

### REGULATIONS

Tuff Stuff B-Side (CAS: None):  
No regulations applicable

polyethylene/ polypropylene glycol glyceryl ether (CAS: 9082-00-2) is found on the following regulatory lists;

- Australia Inventory of Chemical Substances (AICS)
- GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
- IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
- IMO Provisional Categorization of Liquid Substances - List 4: Pollutant only mixtures containing one or more components, forming more than 1% by weight of the mixture, which have not yet been assessed by IMO

diethylene glycol (CAS: 111-46-6) 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)
- GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
- IMO IBC Code Chapter 18: List of products to which the Code does not apply
- IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
- International Council of Chemical Associations (ICCA) - High Production Volume List
- OECD Representative List of High Production Volume (HPV) Chemicals

diethyltoluenediamine (CAS: 68479-98-1) is found on the following regulatory lists;

- Australia Hazardous Substances
  - Australia Inventory of Chemical Substances (AICS)
  - Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
  - OECD Representative List of High Production Volume (HPV) Chemicals
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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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