

Rhino DURASPRAY B-SIDE Material Safety Data Sheet

Page 1 of 6
Issue Date: Thu 18-Dec-2003
Revised Date: 27-February-2009

COMPANY DETAILS

COMPANY NAME:	RHINO LININGS AUSTRALASIA PTY LTD
COMPANY ADDRESS:	501 – 505 OLSEN AVENUE, MOLENDINAR QLD 4214
TELEPHONE:	+61 7 5585 7000
FACSIMILE:	+61 7 5539 6399

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS substance. NON-DANGEROUS GOODS. According to the criteria of NOHSC, and the ADG Code

IDENTIFICATION

PRODUCT NAME:	Rhino Duraspray B-Side, Resin.
SYNONYMS	Polyurethane spray coating, curative side.
PART NUMBER:	Part # DS10062 – 62kg, DS10204 – 204kg.
U.N.NUMBER:	None
HAZCHEM CODE:	None
CAS RN No(s)	None
PACKING GROUP	None
DANGEROUS GOODS CLASS & SUB RISK:	None None
POISON SCHEDULE:	None
USE:	Component B of a polyurethane lining formulation. Always use in admixture with component A. Can only be applied using specialised plural component spray equipment.

PHYSICAL PROPERTIES/DESCRIPTION:

APPEARANCE:	Pale yellow liquid liquid with a slight odour; does not mix with water
BOILING POINT:	>200
MELTING POINT:	Not available
VAPOUR PRESSURE (kPa)	Not available
SPECIFIC GRAVITY	1.04
FLASHPOINT	>150°C, PMCC
LOWER EXPLOSIVE LIMIT %	Not available
UPPER EXPLOSIVE LIMIT %	Not available
SOLUBILITY IN WATER %:	Solubility in Water (g/L): Immiscible
VISCOSITY:	

INGREDIENTS

Name	CAS RN	%
polyethylene/ polypropylene glycol glyceryl ether	9082-00-2	>60
diethylene glycol	111-46-6	0-14
additives		0-19

Rhino DURASPRAY B-SIDE

Material Safety Data Sheet

_Page 2 of 6
Date of Issue: Thu 18-Dec-2003
Revised Date: 27-February-2009

HEALTH HAZARD INFORMATION

Swallowed:	Considered an unlikely route of entry in commercial/industrial environments Ingestion may result in nausea, abdominal irritation, pain and vomiting
Eye Contact:	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
Skin Contact:	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
Inhalation:	Not normally a hazard due to non-volatile nature of product

CHRONIC HEALTH EFFECTS

Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

FIRST AID

Swallowed:	<ul style="list-style-type: none"> · 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. · Observe the patient carefully. · Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. · Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. · Seek medical advice.
Skin Contact:	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> · Flush skin and hair with running water (and soap if available). · Seek medical attention in event of irritation.
Eye Contact:	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> · Wash out immediately with fresh 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. · If pain persists or recurs seek medical attention. · Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Inhalation:	<ul style="list-style-type: none"> · If fumes or combustion products are inhaled remove from contaminated area. · Other measures are usually unnecessary

ADVICE TO DOCTOR - Treat symptomatically

PRECAUTIONS FOR USE

Exposure Standards:	<p>No data for Rhino Duraspray B-Side, Resin.</p> <p>EXPOSURE STANDARDS FOR MIXTURE</p> <p>"Worst Case" computer-aided prediction of vapour components/concentrations: Composite Exposure Standard for Mixture (TWA) (mg/m³): 100 mg/m³</p>
---------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The information provided herein and/or otherwise supplied to users is based on our current knowledge, accordingly any conclusions or recommendations are made without liability on the part of Rhino Linings Australasia Pty Ltd and/or any of the company's employees or associates. Factors outside of our control can affect the use of these products and we therefore cannot accept responsibility for any injury, loss or damage resulting from reliance upon such information.

Rhino DURASPRAY B-SIDE

Material Safety Data Sheet

_Page 3 of 6
Date of Issue: Thu 18-Dec-2003
Revised Date: 27-February-2009

Exposure Standards cont.:	<p>EXPOSURE STANDARDS FOR MIXTURE cont. If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed. Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc: (%) diethylene glycol 23 100 14</p> <p>INGREDIENT DATA POLYETHYLENE/ POLYPROPYLENE GLYCOL GLYCERYL ETHER: No exposure limits set by NOHSC or ACGIH DIETHYLENE GLYCOL: ES TWA: 23 ppm, 100 mg/m³ OES TWA: 23 ppm, 101 mg/m³ REL TWA: 100 ppm, 450 mg/m³ [Union Car] MAK value: 10 ppm, 44 mg/m³</p> <p>MAK Category II Peak Limitation: For substances with systemic effects and with a half-life in humans ranging from two hours to shift-length. Allows excursions of 5 times the MAK value, for 30 minutes (on average), twice per shift. MAK Group C: There is no reason to fear risk of damage to the developing embryo when MAK and BAT values are observed. MAK values, and categories and groups are those recommended within the Federal Republic of Germany AIHA WEEL TWA-8: 50 ppm as vapour and aerosol AIHA WEEL TWA-8: 10 mg/m³ as aerosol Saturated Vapour Concentration @ 20 C. = 13 ppm. This indicates that the AIHA WEEL TWA-8hr of 50 ppm, cannot be exceeded at ambient temperatures, unless an aerosol is present.</p>										
Engineering Controls	<p>General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.</p> <p>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Type of Contaminant:</td> <td style="width: 40%;">Air Speed:</td> </tr> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s (50-100 f/min)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s (100-200 f/min.)</td> </tr> <tr> <td><i>Type of Contaminant:</i> direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td><i>Air Speed:</i> 1-2.5 m/s (200-500 f/min.)</td> </tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td> <td>2.5-10 m/s (500-2000 f/min.)</td> </tr> </table>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	<i>Type of Contaminant:</i> direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	<i>Air Speed:</i> 1-2.5 m/s (200-500 f/min.)	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)
Type of Contaminant:	Air Speed:										
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)										
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)										
<i>Type of Contaminant:</i> direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	<i>Air Speed:</i> 1-2.5 m/s (200-500 f/min.)										
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)										

Rhino DURASPRAY B-SIDE

Material Safety Data Sheet

_Page 4 of 6
Date of Issue: Thu 18-Dec-2003
Revised Date: 27-February-2009

PRECAUTIONS FOR USE cont.

Engineering Controls cont	<p>Within each range the appropriate value depends on:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Lower end of the range</p> <p>1: Room air currents minimal or favourable to capture 2: Contaminants of low toxicity or of nuisance value only. 3: Intermittent, low production. 4: Large hood or large air mass in motion</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Upper end of the range</p> <p>1: Disturbing room air currents 2: Contaminants of high toxicity 3: High production, heavy use 4: Small hood-local control only</p> </td> </tr> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	<p>Lower end of the range</p> <p>1: Room air currents minimal or favourable to capture 2: Contaminants of low toxicity or of nuisance value only. 3: Intermittent, low production. 4: Large hood or large air mass in motion</p>	<p>Upper end of the range</p> <p>1: Disturbing room air currents 2: Contaminants of high toxicity 3: High production, heavy use 4: Small hood-local control only</p>													
<p>Lower end of the range</p> <p>1: Room air currents minimal or favourable to capture 2: Contaminants of low toxicity or of nuisance value only. 3: Intermittent, low production. 4: Large hood or large air mass in motion</p>	<p>Upper end of the range</p> <p>1: Disturbing room air currents 2: Contaminants of high toxicity 3: High production, heavy use 4: Small hood-local control only</p>															
Personal Protection	<p>EYE Safety glasses with side shields. Chemical goggles. Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. DO NOT wear contact lenses.</p> <p>HANDS/FEET Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber</p> <p>OTHER Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.</p> <p>RESPIRATOR Respiratory protection may be required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Protection Factor (Min)</th> <th style="text-align: left;">Half-Face Respirator</th> <th style="text-align: left;">Full-face Respirator</th> </tr> </thead> <tbody> <tr> <td>10 x ES</td> <td>A-AUS A-PAPR-AUS</td> <td>- -</td> </tr> <tr> <td>20 x ES</td> <td>- -</td> <td>A-AUS A-PAPR-AUS</td> </tr> <tr> <td>100 x ES</td> <td>- -</td> <td>A-2 A-PAPR-2</td> </tr> <tr> <td>^ - Full-face</td> <td></td> <td></td> </tr> </tbody> </table> <p>The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site-specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.</p>	Protection Factor (Min)	Half-Face Respirator	Full-face Respirator	10 x ES	A-AUS A-PAPR-AUS	- -	20 x ES	- -	A-AUS A-PAPR-AUS	100 x ES	- -	A-2 A-PAPR-2	^ - Full-face		
Protection Factor (Min)	Half-Face Respirator	Full-face Respirator														
10 x ES	A-AUS A-PAPR-AUS	- -														
20 x ES	- -	A-AUS A-PAPR-AUS														
100 x ES	- -	A-2 A-PAPR-2														
^ - Full-face																

The information provided herein and/or otherwise supplied to users is based on our current knowledge, accordingly any conclusions or recommendations are made without liability on the part of Rhino Linings Australasia Pty Ltd and/or any of the company's employees or associates. Factors outside of our control can affect the use of these products and we therefore cannot accept responsibility for any injury, loss or damage resulting from reliance upon such information.

Rhino DURASPRAY B-SIDE

Material Safety Data Sheet

Page 5 of 6
Date of Issue: Thu 18-Dec-2003
Revised Date: 27-February-2009

PRECAUTIONS FOR USE cont.

Spillages and Disposal	<p>SUITABLE CONTAINER</p> <ul style="list-style-type: none">· Metal can or drum· Packaging as recommended by manufacturer.· Check all containers are clearly labeled and free from leaks. <p>STORAGE INCOMPATIBILITY Avoid reaction with oxidising agents</p> <p>STORAGE REQUIREMENTS</p> <ul style="list-style-type: none">· Store in original containers.· Keep containers securely sealed.· No smoking, naked lights or ignition sources.· Store in a cool, dry, well-ventilated area.· Store away from incompatible materials and foodstuff containers.· Protect containers against physical damage and check regularly for leaks.· Observe manufacturer's storing and handling recommendations. <p>TRANSPORTATION No restrictions.</p> <p>MINOR SPILLS</p> <ul style="list-style-type: none">· 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.· Contain and absorb spill with sand, earth, inert material or vermiculite.· Wipe up.· Place in a suitable labeled container for waste disposal. <p>MAJOR SPILLS Moderate hazard.</p> <ul style="list-style-type: none">· Clear area of personnel and move upwind.· 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.· No smoking, naked lights or ignition sources.· Increase ventilation.· Stop leak if safe to do so.· Contain spill with sand, earth or vermiculite.· Collect recoverable product into labelled containers for recycling.· Absorb remaining product with sand, earth or vermiculite.· Collect solid residues and seal in labelled drums for disposal.· Wash area and prevent runoff into drains. <p>If contamination of drains or waterways occurs, advise emergency services.</p> <p>DISPOSAL</p> <ul style="list-style-type: none">· Recycle wherever possible or consult manufacturer for recycling options.· Consult State Land Waste Management Authority for disposal.· Bury residue in an authorised landfill.· Recycle containers if possible, or dispose of in an authorised landfill.
------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Rhino DURASPRAY B-SIDE

Material Safety Data Sheet

_Page 6 of 6
Date of Issue: Thu 18-Dec-2003
Revised Date: 27-February-2009

SAFE HANDLING INFORMATION

Fire Fighters Report	<p>EXTINGUISHING MEDIA Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.</p> <p>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. · Avoid spraying water onto liquid pools. · Do not approach containers suspected to be hot. · Cool fire exposed containers with water spray from a protected location. · If safe to do so, remove containers from path of fire.</p> <p>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). · May emit acrid smoke. · Mists containing combustible materials may be explosive. Combustion products include carbon dioxide (CO₂) aldehydes other pyrolysis products typical of burning organic material</p> <p>FIRE INCOMPATIBILITY Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</p> <p>HAZCHEM None</p>
----------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CONTACT POINT

Company Contact	+61 7 5585 7000
Australian Poisons Information Centre 24 hr Service	13 11 26
Police, Ambulance, Fire Brigade	000
New Zealand Poisons Information Centre 24 hr Service	03 4747 000
New Zealand Emergency Services	111

This document has been prepared by Rhino Linings Australasia Pty Ltd.

End of Report

The information provided herein and/or otherwise supplied to users is based on our current knowledge, accordingly any conclusions or recommendations are made without liability on the part of Rhino Linings Australasia Pty Ltd and/or any of the company's employees or associates. Factors outside of our control can affect the use of these products and we therefore cannot accept responsibility for any injury, loss or damage resulting from reliance upon such information.

