



SAFETY DATA SHEET

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Pumaflex 2000 (Hardener Component)

Revision 8
Revision date 30-Mar-2007

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name Pumaflex 2000 (Hardener Component)
Company Resdev Ltd
Pumaflex House
Ainleys Industrial Estate
Elland
HX5 9JP
info@resdev.co.uk
www.resdev.co.uk
Telephone +44 (0)1422 379131
Fax +44 (0)1422 370943

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients

	Conc.	CAS	EINECS	Symbols/Risk phrases
4,4'-Diphenylmethane-diisocyanate	90 - 100%	9016-87-9		Xn;R20 Xi;R36 Xi;R37 Xi;R38 Xn;R42 Xi;R43

3. HAZARDS IDENTIFICATION

Main hazards Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.

4. FIRST AID MEASURES

Skin contact Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Eye contact Rinse immediately with plenty of water for 15 minutes holding the eyelids open.
Inhalation Move the exposed person to fresh air. Seek medical attention.
Ingestion DO NOT INDUCE VOMITING. Immediate medical attention is required. Rinse mouth thoroughly.

5. FIRE FIGHTING MEASURES

Extinguishing media Carbon dioxide (CO2) Dry chemical. Alcohol resistant foam.
Fire hazards Burning produces irritating, toxic and obnoxious fumes.
Protective equipment Wear: Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate personnel to a safe area. Wear suitable protective equipment.
Environmental precautions Prevent further spillage if safe. Do not allow product to enter drains. Advise local authorities if large spills cannot be contained.
Clean up methods Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approximately one hour transfer to waste container and do not seal (evolution of CO2!). Transfer to suitable, labelled containers for disposal.

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7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation of the working area. Do not eat, drink or smoke in areas where this product is used or stored. Avoid contact with eyes and skin.
Storage	Store at temperatures between 20 °C and 35 °C. Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Keep away from water.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures	Ensure adequate ventilation of the working area.
Occupational exposure controls	Keep away from food, drink and animal feedingstuffs.
Respiratory protection	Wear suitable respiratory equipment when necessary.
Hand protection	Butyl rubber gloves. Neoprene gloves. Nitrile rubber gloves.
Eye protection	Approved safety goggles.
Protective equipment	Wash all contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description	Liquid.
Colour	Amber.
Odour	Characteristic.
Vapour pressure	<0.00001 mmHg @ 25 °C
Relative density	1.21 - 1.25 @ 25 °C
Water solubility	insoluble.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to avoid	Heating produces hazardous fumes.
Materials to avoid	Acids. Amines. Bases. Strong oxidising agents. Copper and its alloys.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	ORL RAT LD50 >2000 mg/kg. Ingestion may cause nausea and vomiting. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.
Corrosivity	May cause irritation to eyes. May cause irritation to skin. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.
Sensitization	May cause sensitisation by skin contact.
Repeated or prolonged exposure	Prolonged or repeated exposure may cause irritation to skin and mucous membranes.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Acute fish toxicity: LC50=>1000 mg/l 96H. Test species: Zebra barbel (Brachydanio rerio) Acute daphnia toxicity: EC50=> 1000 mg/l 24H. Test species: Daphnia magna.
Degradability	Not readily biodegradable, 0, 28.
Further information	The product reacts with water at the interface forming CO2 and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water-soluble solvents.

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13. DISPOSAL CONSIDERATIONS

General information	Dispose of as special waste in compliance with local and national regulations.
Disposal of packaging	Empty containers can be sent to landfill after cleaning, if in compliance with local and national regulations.

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

Labelling	The product is classified in accordance with 67/548/EEC. P4 - Contains isocyanates. See information supplied by the manufacturer.
Symbols	Xn - Harmful 
Risk phrases	R20 - Harmful by inhalation. R36/37/38 - Irritating to eyes, respiratory system and skin. R42/43 - May cause sensitisation by inhalation and skin contact.
Safety phrases	S23 - Do not breathe gas/fumes/vapour/spray. S24 - Avoid contact with skin. S37 - Wear suitable gloves. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S63 - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16. OTHER INFORMATION

Text of risk phrases in Section 2	R20 - Harmful by inhalation. R36 - Irritating to eyes. R37 - Irritating to respiratory system. R38 - Irritating to skin. R42 - May cause sensitisation by inhalation. R43 - May cause sensitisation by skin contact.
Further information	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
Revision	This document differs from the previous version in the following areas: 9 - viscosity.