# Rockpave SDS - hardener

## 1. Identification of the Material and Supplier Chemical

**Nature:** HDI Homopolymer

**Use:** Manufacture of adhesive resin for bound paving system.

**Supplier Company:**

MPS Paving Systems Australia Pty Ltd.
79-81 Intrepid Street
Berwick VIC 3806

P: + 61 3 9707 0077
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## 2. Hazards Identification

**Hazard Classification:**

HAZARDOUS SUBSTANCE - NON-DANGEROUS GOODS

CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF ASCC HAZARD CATEGORY: IRRITANT (Xi)

NOT CLASSIFIED AS DANGEROUS GOOD TO THE CRITERIA OF AUSTRALIAN DANGEROUS GOODS CODE

**Risk Phrases:**

**R43 -** May cause sensitisation by skin contact.

**Safety Phrases:**

Keep container tightly closed and dry. Do not breathe vapour. Avoid contact with skin. Wear suitable gloves. In case of insufficient ventilation wear suitable respiratory equipment.

**Poison Schedule:**

**S6 -** Poison.

## 3. Composition - Information on Ingredients

| Substance Name | Proportion | CAS Number | Risk Phrases |
|---|---|---|---|
| Aliphatic Polyisocyanate | >99% | 28182-81-2 | R43 |
| Hexamethylene Diisocyanate | <0.2% | 822-06-0 | R23/36/37/38/42/43 |

## 4. First Aid Measures

**Inhalation:** Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis) ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical attention.

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| **Skin:** | If skin or hair contact occurs, immediately remove any contaminated clothing and loosen remaining clothing and wash skin and hair thoroughly with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. |
| **Ingestion:** | Rinse mouth with water, if swallowed, DO NOT induce vomiting. Give a glass of water. Seek immediate medical attention. |

## 4. First Aid Measures (continued...)

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| **Medical Attention and Special Treatment:** | Treat symptomatically. |
| **First Aid Facilities:** | Eye wash fountain, safely shower and normal washroom facilities. |

## 5. Fire Fighting Measures

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| **Hazards from Combustion Products:** | Combustible Liquid |
| **Precautions for Fire Fighters and Special Protective Equipment:** | On burning will emit toxic fumes, including those of oxides of carbon, and oxides of nitrogen. Keep containers cool with water spray. If safe to do so, remove containers from path of fire. Fire fighters to wear self contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. |
| **Suitable Extinguishing Media:** | Normal foam, dry agent (carbon dioxide, dry chemical powder). |
| **Unsuitable Extinguishing Media:** | Water |

## 6. Accidental Release Measures

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| **Emergency Procedures:** | Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred, advise local emergency services. |
| **Methods and Materials for Containment and Clean Up Procedures:** | Slippery when spilt. Avoid accidents clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work upwind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent soil, sand or other inert material. Wash area down with excess water. |

## 7. Handling and Storage

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| **Precautions for Safe Handling:** | Classified as C2 (combustible liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport. The material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations. |
| **Conditions for Safe Storage:** | Store in a cool, dry and well ventilated place out of direct sunlight. Store away from sources of heat and ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep dry - reacts with water, may lead to drum rupture. Do not store in copper or copper alloy tanks. Do not store in tin containers. Keep containers closed when not in use - check regularly for leaks. |
| **Precautions for Safe Handling:** | Avoid skin and eye contact and breathing vapour, mists and aerosols. Keep our of reach of children. |

## 8. Exposure Controls/ Personal Protection

**Occupational Exposure Limits:**

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standards for constituent(s):

**ISOCYANATES, all (as-NCO)**
8 HR TWA = 0.2 mg/m³
15 MIN STEL = 0.07 mg/m³

Notices: "Sen"
As published by the National Occupational Health and Safety Commission.

## 8. Exposure Controls/ Personal Protection (continued...)

**TWA -** The time weighted average airborne concentration over and 8 hour working day, for a five day working week over an entire working life.

**STEL -** (short term exposure limit)
The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal 8 hour work day. According to current knowledge, this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

**Sen Notice: Sensitiser**

The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.
These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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| **Engineering Controls:** | Ensure ventilation is adequate and that air concentrations of components are kept below quoted exposure standards. Use with local exhaust ventilation or while wearing air supplied mask. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use. |
| **Personal Protection Equipment:** | The selection of PPE is dependant on a detailed risk assessment, The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and other environmental factors. |
| **Eye/Face Protection:** | Rinse mouth with water, if swallowed, DO NOT induce vomiting. Give a glass of water. Seek immediate medical attention. |
| **Skin Protection:** | Full protective clothing - PVC or rubber gloves, safety shoes/boots/overalls. |

**Respiratory Protection:** Avoid breathing of vapours/gasses. Select and use respirators with AS/NZS 1715-1716. When gasses exceed the exposure standards then the use of a half-face respirator with organic vapour cartridge is recommended.
For high concentration, use an atmosphere supplied, positive pressure demands self contained or airline breathing apparatus, complying with the requirements of AS/NZS 1715 is recommended.
Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a self contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715/171, or any other acceptable International Standard is recommended.

## 9. Physical and Chemical Properties

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| **Physical State:** | Clear Liquid | **Flammability Limits (%):** | Not Available |
| **Colour:** | Clear to pale yellow | **Auto Ignition Temp (°C):** | Not Available |
| **Odour:** | Odourless | **Boiling Point/Range (°C):** | >220 °C@1.33hPa |
| **Solubility:** | Reacts with water | **Decomposition Point:** | Not Available |
| **Specific Gravity:** | 1160 kg/m³@25 °C | **pH:** | Not Applicable |
| **Relative Vapour Density (air=1):** | Not Available | | |
| **Vapour Pressure (20°C):** | Not Available | | |
| **Flash Point (°C):** | 168 °C (Closed Cup) | | |

## 10. Stability and Reactivity

**Chemical Stability:** Stable at ambient temperatures.
**Conditions to Avoid:** Avoid exposure to heat, sources of ignition and open flame.
**Incompatible Materials:** Alcohols, amines, bases, water and aqueous solutions, and protic solvents liberating carbon dioxide.
**Hazardous Reactions:** Reacts with alcohols, amines, bases, water and aqueous solutions, and protic solvents liberating carbon dioxide.

## 11. Toxicological Information

No adverse health affects are expected, if the product is handled in accordance with this Material Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled and overexposure occurs are:

**Ingestion:** No adverse effects expected, however, large amounts may cause nausea and vomiting.
**Eye Contact:** Repeated or prolonged skin contact may lead to irritation. A skin sensitiser.
Repeated or prolonged skin contact may lead to allergic contact dermatitis.
**Inhalation:** May be irritant to the mucous membranes of the respiratory tract.
**Long Term Effects:** No information available for this product.
**Toxicological Data:** Oral LD50 (rat); >5000mg/kg (unpublished reports).

## 12. Ecological Information

**Ecotoxicity:** Not regarded as dangerous for the environment.

## 13. Disposal Consideration

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| **Waste Disposal Method:** | Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Advise flammable nature. Neutralise with a mixture of ammonia solution (190g/L), water and ethanol (5%, 50% and 45%). |
| **EPA Hazardous Waste:** | Not classified as hazardous waste. |

## 14. Transport Information

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| **UN Number:** | None allocated | **Subsidiary Risk:** | None allocated |
| **Proper Shipping Name:** | None allocated | **Packing Group:** | None allocated |
| **Dangerous Goods Class:** | None allocated | **Hazchem Code:** | None allocated |

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| **Road and Rail Transport (ADG):** | Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) for transport by road and rail.<br>NON DANGEROUS GOODS |
| **Marine Transport (IMO/ IMDG):** | Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.<br>NON DANGEROUS GOODS |
| **Air Transport (ICAO-IATA):** | Not classified as a Dangerous Good according to the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.<br>NON DANGEROUS GOODS |

## 15. Regulatory Information

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| **Classification:** | This material is hazardous according to criteria of ASCC.<br>HAZARDOUS SUBSTANCE |
| **Hazard Category:** | Xi Irritant |
| **Risk Phrases:** | **R43 -** May cause sensitisation by skin contact. |
| **Safety Phrases:** | **s7/8 -** Keep container tightly closed and dry.<br>**S23 -** Do not breathe vapour and fumes.<br>**S24 -** After contact with skin, wash immediately with plenty of soap and water.<br>**S37 -** Wear suitable protective clothing, gloves and eye/face protection.<br>**S38 -** In case of insufficient ventilation, wear suitable respiratory equipment. |
| **Poison Schedule:** | **S6 -** Poison. |
| **Inventory Status:** | This material is listed on the Australian Inventory of Chemical Substances (AICS). |

## 16. Other Information

**Material Safety Data Sheets are updated frequently.**
**Please ensure that you have a current copy.**

**Disclaimer:**

This Material Safety Data Sheet should be used in conjunction with the Technical Data Sheet. It does not replace them. The information given is based on our knowledge of the health and safety data of this product, at the time of publication. It is given in

good faith. The attention of the use is drawn to the possible risks incurred by using the product for any purpose other than that for which it is intended.
If clarification or further information is need to enable appropriate risk assessment, the user should contact MPS Paving Systems Australia Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions sent to customers. No liability whatsoever can be accepted with regard to the handling, processing or use of the product concerned which, in all cases, shall be in accordance with the appropriate regulations and/ or legislation.