

SAFETY DATA SHEET INFORMATION

For further information: Please refer to the Safety Data Sheet following

Issue: September 26

PRODUCT: Hardcure

Other Names: Polyurethane Binder (aromatic)

Uses: Polymer Coating

Signal Word: Danger

UN No.: N/R

Dangerous Goods Class: N/R

Subsidiary Risk: None

Packing Group: N/R

Hazchem Code: N/R

Hazardous Nature:	This product is classified as hazardous according to Australian GHS criteria.
Hazard Statement:	Specific Target Organ Toxicity (Repeated Exposure): 1; Serious Eye Damage/Irritation: 2B; Specific Target Organ Toxicity (Respiratory Sensitiser): 1; Skin Corrosion/Irritation: 2; Specific Target Organ Toxicity (Skin Sensitiser): 2
Exposure Standards:	TWA: 0.12 mg/m ³ ; STEL: 0.17 mg/m ³ ; Peak Limitation (if any): None; Skin Sensitiser (if any): sensitiser on inhalation. Refer to Section 8 for further information and definitions.

Physical Characteristics (Typical)

Section 9 of the SDS

Appearance	Clear, pale yellow viscous liquid
Boiling Point/Range (°C):	> 200
Flash Point (°C):	> 200
Specific Gravity/Density (g/ml @ 20°C):	1.1
pH:	Not applicable
Chemical Stability:	Stable at room temperature and pressure
Reactivity:	Extreme heat, oxidising agents, amines, alcohols and water

Product Ingredients

Section 3 of the SDS

Ingredient	CAS Number	Proportion
PMPP Polyisocyanate Copolymer	53862-89-8	< 70
MDI (modified): diphenylmethane diisocyanate	9016-87-9	< 20
Other ingredients determined not to be hazardous	various	< 20

For further ingredients information, please refer to the full MSDS

Pictograms

Section 2 of the SDS



DEFINITIONS

Dangerous Goods	Products that are regulated for transport by Road and Rail under the national guide are Dangerous Goods. Products can be classed as Dangerous Goods if they have a flash point below 60.5°C, a pH below 3 or above 11, are explosives or toxic. These goods will be allocated a UN No., Packing Group, Hazchem Code, and possibly a subsidiary risk.
Hazardous Substances	Hazardous Substances are those products that are intrinsically hazardous by nature, rather than by misuse. These include mutagens, teratogens, carcinogens, products that are toxic (but not sufficiently toxic to be classed as Dangerous Goods or carry a subsidiary risk), and products that pose environmental risks.

1. IDENTIFICATION

Product Name: Hardcure
Other Names: Polyurethane Binder (aromatic)
Chemical Family: Polymer binder
Molecular Formula: No data available
Recommended Use: Rubber Binder
Supplier: A1 Rubber
ABN: 92 095 559 130
Address: 34 Binary Street, Yatala Qld 4207
Telephone: +61 7 3807 3666
Emergency Phone: **0455 070 954**
All other inquiries: +61 7 3807 3666

2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous according to Australian GHS criteria.

Hazard Statement

Specific Target Organ Toxicity (Repeated Exposure): 1; Serious Eye Damage/Irritation: 2B; Specific Target Organ Toxicity (Respiratory Sensitiser): 1; Skin Corrosion/Irritation: 2; Specific Target Organ Toxicity (Skin Sensitiser): 2

Pictograms



Hazard

Irritant

Hazard Statements

H315+320+335: Causes skin, eye, and respiratory irritation
H372: Causes damage to organs through prolonged or repeated exposure
H312 + 332: Harmful in contact with skin or inhaled
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statements

P102: Keep out of reach of children.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P284: [In case of inadequate ventilation] wear respiratory protection.
P301+312+101: IF SWALLOWED: Call a POISON CENTER/doctor, if you feel unwell, and have product container or label at hand.
P270: Do not eat, drink or smoke when using this product.
P337+313: If eye irritation persists get medical advice/attention.
P342+311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

Dangerous Goods Classification N/R

Signal Word Danger

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS Number	Proportion (% v/v)
PMPP Polyisocyanate Copolymer	53862-89-8	< 70
MDI (modified): diphenylmethane diisocyanate	9016-87-9	< 20
Other ingredients determined not to be hazardous	various	< 20
Note: contains: methylenediphenyldiisocyanate	101-68-8	< 6

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor.

Ingestion

If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

Eye Contact

Flush area with large amounts of water until irritation subsides. Seek immediate medical attention.

Skin Contact

Flush area with large amounts of water and use soap if available. Remove contaminated clothing, including shoes and laundry before reuse. Seek immediate medical attention for skin irritations.

Inhalation

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

First Aid Facilities

Provide eye baths and safety showers

Medical Attention

Treat according to symptoms.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable Extinguishing Media

Alcohol resistant foam, dry chemical or foam. Do not use water jets or spray.

Hazards from combustion products

Carbon dioxide, carbon monoxide, and nitrogen complexes

Precautions for fire fighters and special protective equipment

Full protective clothing and self-contained breathing apparatus

Hazchem Code N/R

6. ACCIDENTAL RELEASE MEASURES**Emergency Procedures**

Prevent product from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours or dusts from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment**Major Land Spill**

- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard, where present.

- Prevent product from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Take measures to minimise the effect on the ground water.
- Contain the spilled product using the resources in the spill kit.
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”

Major Water Spill

- Eliminate any sources of ignition.
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard, where present.
- Notify the port or relevant authority and keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

7. HANDLING AND STORAGE

Precautions for Safe Handling

This product is combustible. Do not use in situations of extreme heat. Avoid contact with naked flames or ignition sources. Use appropriate industrial hygiene practices.

Conditions for Safe Storage

Store in a cool, dry place away from sunlight. Keep container closed and protect packaging from physical damage. Check regularly for product leaks.

Incompatible Materials

Natural rubbers, polystyrene, household plastics

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

National Exposure Standards

The time weighted average concentration (TWA) for this product is: 0.12 mg/m³, which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short term exposure limit (STEL) is: 0.17 mg/m³, which is the maximum allowable exposure concentration at any time. Replacing a TWA or STEL value for some products is a Peak Limitation value (Peak): None applies in this case. In addition to the exposure concentrations may be a subsidiary caution in such cases where the product is a skin sensitizer, represented as (Sen), where sensitizer on inhalation applies in this case.

Biological Limit Values (BLV)

None established

Engineering Controls: Ventilation

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion proof equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may approach or exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type ‘A’ filter material is considered suitable for this product.

Eye Protection: Always use safety glasses or a face shield when handling this product.

Skin/Body Protection: Always wear long sleeves, long trousers, or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical Value
Appearance	None	Clear, pale yellow viscous liquid
Boiling Point/Range	°C	> 200
Flash Point	°C	> 200
SG/Density (@ 20°C)	g/ml; kgm ⁻³	1.1
Vapour Pressure @ 20°C	kPa	No data available
Vapour Density @ 40°C	g/ml; kgm ⁻³	> 1.0
Autoignition Temperature	°C	Decomposes above 230
Explosive Limits in Air	% vol/vol	No data available
Viscosity @ 20°C	cPs, mPas	3000
Percent volatiles	% vol/vol	< 50
Acidity/alkalinity as pH	None	Not applicable
Solubility in Water	g/l	Insoluble but reacts with water
Other solvents	-	Esters

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Technical Data Sheet.

10. STABILITY AND REACTIVITY**Chemical stability**

Stable at room temperature and pressure

Conditions to avoid

Extreme heat, oxidising agents, amines, alcohols and water

Hazardous decomposition products

Carbon dioxide, carbon monoxide and nitrogen complexes

Hazardous reactions

Carbon dioxide and heat in reactions with amines and water

Hazardous polymerisation

Will polymerise with addition of heat

11. TOXICOLOGICAL INFORMATION**Acute Effects****Ingestion**

Swallowing will result in discomfort, irritation to throat and oesophagus, dizziness, headache, shortness of breath, and a sense of euphoria. Symptoms may lead to central nervous system disorder, nausea, loss of consciousness, and possibly pulmonary oedema.

Eye Contact

Avoid contact with eyes. Risk of serious damage to eye and surrounding tissue. Product and vapour will be irritating to eyes resulting in redness, tearing, swelling, and corneal damage.

Skin Contact

This product is irritating to skin resulting in itchiness, redness, defatting of the skin and possibly swelling. Prolonged exposure to this product without the appropriate PPE may result in irritant contact dermatitis.

Inhalation

Inhalation of mists of this product will result in symptoms similar to ingestion. This product will be irritating to respiratory system, nose and throat. Sensitisation to this product is possible through inhalation.

Chronic Effects

Sensitisation is possible through inhalation. Exposure to reactions of this product with incompatibles can result in long term adverse health effects.

Other Health Effects Information

Persons with pre-existing liver, respiratory and, or skin conditions may be sensitive to this product.

Toxicological Information

Oral LD₅₀: MDI: rat: 49 g/kg

Dermal LD₅₀: Inhal (rat): 490 mg/m³/4hr; Skin (rabbit): > 9400 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity****Aquatic Toxicity:**

Fish Toxicity LC₅₀: > 50 mg/L

Daphnia Magna EC₅₀: > 250 mg/L

Blue-green algae: No data available

Green algae: No data available

Persistence/Biodegradability:

This product is expected to biodegrade, with exothermic reactions.

Mobility:

This product is not likely to be mobile. This product is strongly reactive to environmental elements.

13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Ensure that empty packaging is managed in accordance with Dangerous Goods regulations.

Special Precautions

This product is not suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product should be treated and disposed through chemical waste treatment, or considered for use in recycling.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN No.	N/R	UN No.	N/R	UN No.	N/R
Proper Shipping Name	Polymer binder	Proper Shipping Name	Polymer binder	Proper Shipping Name	Polymer binder
DG Class	N/R	DG Class	N/R	DG Class	N/R
Sub. Risk	None	Sub. Risk	None	Sub. Risk	None
Packing Group	N/R	Packing Group	N/R	Packing Group	N/R
Hazchem	N/R	Hazchem	N/R	Hazchem	N/R

Dangerous Goods Segregation

This product is not classified as Dangerous Goods for Transport by Road and Rail.

15. REGULATORY INFORMATION

Country/Region: Australia

Inventory: AICS

Status: Listed

16. OTHER INFORMATION

Reasons for Issue: Updated SDS; new manufacturers information in all sections.

Abbreviations:

AICIS: Australian Industrial Chemicals Introduction Scheme

AICS: Australian Inventory of Chemical Substances

ATE: Acute Toxicity Estimate

CAS Number: Chemical Abstracts Number

GHS: Globally Harmonised System

IARC: International Agency for Research on Cancer

IUCLID: International Uniform Chemical Information Database

PPE: Personal Protective Equipment

EC: European Chemical identification number

EINECS: European Inventory of Existing Chemical Substances

IChEMS: Industrial Chemicals Environmental Management Standard

LoW: List of Wastes

LC₅₀: Lethal Concentration to 50% of sample population

LD₅₀: Lethal Dose to 50% of sample population

N/R: Non-regulated

N/A: Not applicable

PEC: Predicted Effect Concentration

PNEC: Predicted Non-effect Concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons

UN: United Nations

References:

- Supplier Safety Data Sheets
- <http://hcis-old.safeworkaustralia.gov.au/HazardousChemical> (September 26)
- <https://tinyurl.com/ECHA-Reach-Chemical-Search> (September 26)
- Animal toxicology data: <https://portal.apvma.gov.au/pubcris> (September 26)
- Ecotoxicology data: <https://cfpub.epa.gov/ecotox> (September 26)

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact A1 Rubber.