

# **SAFETY DATA SHEET**

## HARDIE<sup>™</sup> JOINT SEALANT

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## Section 1 - Identification

**Product Identifier** HARDIE<sup>™</sup> JOINT SEALANT

**Company Name** James Hardie Australia Pty Limited

Address Level 17/60 Castlereagh St, Sydney NSW 2000 Australia

Telephone/Fax Number Telephone: 13 11 03

Emergency Phone Number 1800 638 556

**Recommended use of the chemical and restrictions on use** Adhesives and/or sealants

## Section 2 - Hazard(s) Identification

## GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Acute toxicity: Category 4 - Inhalation Eye Damage/Irritation: Category 2 Sensitisation - respiratory: Category 1

Signal Word (s) DANGER

Hazard Statement (s)H319 Causes serious eye irritation.H332 Harmful if inhaled.H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Pictogram (s)

Health hazard, Exclamation mark



**Precautionary Statement – Prevention** P261 Avoid breathing fume/mist/vapours. Page 1/10

Jurisdiction: Au ghs

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear eye protection/face protection.

P284 In case of inadequate ventilation where any fumes may not readily dissipate, wear respiratory protection.

#### **Precautionary Statement – Response**

P312 Call a POISON CENTER/doctor if you feel unwell.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

#### **Precautionary Statement – Disposal**

P501 Dispose of contents/container to an approved waste disposal plant.

#### **Other Information**

Causes mild skin irritation.

Harmful to aquatic life.

This product contains an Ototoxic substance. Combination with noise exposure, even at safe levels, could still cause auditory injuries and hearing loss.

## Section 3 - Composition and Information on Ingredients

#### Ingredients

Name	CAS	Proportion
Xylene	1330-20-7	0-<10 %
Titanium dioxide	13463-67-7	1-<5 %
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	<1 %
Toluene diisocyanate	26471-62-5	0.1-<0.2 %
Ingredients determined not to be hazardous		Balance

#### Information on Composition

Mixture

#### **Other Information**

Titanium dioxide: The components of this product are embedded in an impervious polymer matrix and are therefore not biologically available. Not expected to be an inhalation hazard under normal conditions of use.

## Section 4 - First Aid Measures

#### **First Aid Measures**

Show this safety data sheet to the doctor in attendance.

#### Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

#### Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

## Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

## Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

#### **First Aid Facilities**

Eyewash, safety shower and normal washroom facilities.

#### Advice to Doctor

Treat symptomatically.

#### Indication of immediate medical attention and special treatment needed if necessary

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released, when the product is exposed to moisture or water.

#### **Protection for First Aiders**

Pay attention to self-protection. Do not get in eyes, on skin, or on clothing. Wear appropriate personal protective equipment and clothing to prevent exposure. Protect from contamination. Avoid breathing in vapours, mist or fumes.

#### Most important symptoms/effects, acute, delayed and aggravated medical conditions

May cause redness and tearing of the eyes. Burning sensation. Prolonged contact may cause redness and irritation. Coughing and/ or wheezing. Difficulty in breathing.

#### **Other Information**

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

## **Section 5 - Firefighting Measures**

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical or foam.

#### **Hazards from Combustion Products**

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including hydrochloric acid, hydrogen cyanide, carbon monoxide, carbon dioxide and oxides of nitrogen.

#### Specific hazards arising from the chemical

This product will burn if exposed to fire.

**Decomposition Temperature** 

Not available

#### Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

## **Section 6 - Accidental Release Measures**

#### **Emergency Procedures**

Do not get in eyes, on skin, or on clothing. Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

## Section 7 - Handling and Storage

#### **Precautions for Safe Handling**

Avoid breathing in vapours, mist or fumes. Avoid contact with skin and eyes. Do not get this material on clothing. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Do not use near ignition sources. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities. Do not eat, drink or smoke when using this product.

#### Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Store in a cool, dry, well-ventilated area away from sources of ignition, foodstuffs, clothing and incompatible materials such as oxidising agents. Protect from moisture. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

#### **Storage Temperatures**

Recommended storage temperature: Store between 10 °C and 35 °C.

## Section 8 - Exposure Controls and Personal Protection

#### **Occupational exposure limit values**

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
Xylene	Safe Work Australia	TWA	80	ppm	
Xylene	Safe Work Australia	TWA	350	mg/m3	
Xylene	Safe Work Australia	STEL	150	ppm	
Xylene	Safe Work Australia	STEL	655	mg/m3	
Titanium dioxide	Safe Work Australia	TWA	10	mg/m3	(a) inhalable dust containing no asbestos and <1% crystalline silica
Benzenesulfonyl isocyanate, 4- methyl-	Safe Work Australia	TWA	0.02	mg/m3	Sen; Isocyanates, all (as- NCO)
Benzenesulfonyl isocyanate, 4- methyl-	Safe Work Australia	STEL	0.07	mg/m3	Sen; Isocyanates, all (as- NCO)
Toluene diisocyanate	Safe Work Australia	TWA	0.02	mg/m3	Sen; Isocyanates, all (as- NCO)
Toluene diisocyanate	Safe Work Australia	STEL	0.07	mg/m3	Sen; Isocyanates, all (as- NCO)

#### **Biological Monitoring**

Xylene [1330-20-7] Determinant: Methylhippuric acids in urine BEI®: 1.5 g/g creatinine Sampling time: End of shift.

Name: Toluene diisocyanate-2,4- [584-84-9] or 2,6- [91-08-7] or as a mixture of isomers Determinant: Toluene diamine in urine\*,\*\* BEI®: 5  $\mu$ g/g creatinine Sampling time: End of shift. \*With hydrolysis \*\*Sum of 2,4- and 2,6- isomers Notation: Ns

Source: American Conference of Industrial Hygienists (ACGIH)

**Control Banding** Not available

#### **Engineering Controls**

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

#### **Respiratory Protection**

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist/dust filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Recommended Materials - Filter type: Type A/P2 filter conforming to EN 140. Organic gases and vapours filter conforming to EN 14387.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

#### **Eye and Face Protection**

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/ face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

#### **Hand Protection**

Wear gloves of impervious material such as butyl rubber or nitrile rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

#### **Thermal Hazards**

No further relevant information available.

#### **Body Protection**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties	

Properties	Description	Properties	Description
Form	Solid - Paste	Appearance	Grey paste
Colour	Grey	Odour	Characteristic
Melting Point	Not available	Boiling Point	Not available
Decomposition Temperature	Not available	Solubility in Water	Not available
Specific Gravity	Not available	рН	Not available
Vapour Pressure	1	Relative Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Refer to Section 9: Kinematic Viscosity and Dynamic Viscosity	Volatile Component	64 g/L
Partition Coefficient: n- octanol/water (log value)	Not available	Density	1.25 g/cm <sup>3</sup>
Flash Point	Not available	Flammability	Not flammable
Auto-Ignition Temperature	Not available	Explosion Limit - Upper	Not available
Explosion Limit - Lower	Not available	Explosion Properties	Not available
Oxidising Properties	Not available	Kinematic Viscosity	Not available
Dynamic Viscosity	Not available	Particle Characteristics	Not available

## Section 10 - Stability and Reactivity

#### Reactivity

Refer to Section 10: Possibility of hazardous reactions

#### **Chemical Stability**

Stable under normal conditions of storage and handling.

#### Possibility of hazardous reactions

Reacts with incompatible materials.

#### **Conditions to Avoid**

Heat, open flames and other sources of ignition. Product cures with moisture. Avoid excessive heat. Protect from moisture.

Incompatible Materials

Strong oxidising agents.

#### **Hazardous Decomposition Products**

Thermal decomposition may result in the release of toxic and/or irritating fumes including: hydrochloric acid, hydrogen cyanide, carbon monoxide, carbon dioxide and oxides of nitrogen.

#### **Hazardous Polymerization**

Hazardous polymerization may occur.

## Section 11 - Toxicological Information

**Toxicology Information** Toxicity data for material given below.

Acute Toxicity - Oral Product: Acute Toxicity Estimate: 28442 mg/kg

Xylene: LD50 (rat): 3500 mg/kg

Benzenesulfonyl isocyanate, 4-methyl-LD50 (rat): 2234 mg/kg

Toluene diisocyanate LD50 (rat): 3060 mg/kg

Acute Toxicity - Dermal Product: Acute Toxicity Estimate: 5559.90 mg/kg

Xylene: LD50 (rabbit): > 1700 mg/kg LD50 (rabbit): > 4350 mg/kg

Benzenesulfonyl isocyanate, 4-methyl-LD50 (rat): > 2000 mg/kg Method: OECD Test Guideline 402

Toluene diisocyanate LD50 (rabbit): 10000 mg/kg

Acute Toxicity - Inhalation Product: Acute Toxicity Estimate (vapour): 13.30 mg/L Acute Toxicity Estimate (dust/mist): 47.70 mg/L

Benzenesulfonyl isocyanate, 4-methyl-LC50 (rat): > 640 ppm/1h

Toluene diisocyanate LC50 (rat, vapour): 0.107 mg/l/4h Method: OECD Test Guideline 403

LC50 (rat, vapour): 0.48 mg/l/1h Method: OECD Test Guideline 403

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

#### Inhalation

Harmful if inhaled. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin

Causes mild skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

#### Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

#### **Respiratory Sensitisation**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin Sensitisation

Not expected to be a skin sensitiser.

#### Xylene

Species: Mouse Result: Did not show a sensitising effect. Method: OECD Test Guideline 429: Skin Sensitisation: Local lymph node assay (LLNA)

Toluene diisocyanate Species: Mouse Result: Causes sensitisation. Method: OECD Test Guideline 429: Skin Sensitisation: Local lymph node assay (LLNA)

#### **Germ Cell Mutagenicity**

Not considered to be a mutagenic hazard.

#### Carcinogenicity

Not considered to be a carcinogenic hazard.

Titanium dioxide is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Toluene diisocyanate is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Xylene is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

## **Reproductive Toxicity**

Not considered to be toxic to reproduction.

#### STOT - Single Exposure

Not expected to cause toxicity to a specific target organ.

#### **STOT - Repeated Exposure**

Not expected to cause toxicity to a specific target organ.

#### **Aspiration Hazard**

Not expected to be an aspiration hazard.

#### **Other Information**

This product contains an Ototoxic substance. Combination with noise exposure, even at safe levels, could still cause auditory injuries and hearing loss.

## Section 12 - Ecological Information

#### Ecotoxicity

Harmful to aquatic life.

Persistence and degradability Product: Not available

Xylene:

Readily biodegradable. 87.8% biodegradability in 28 days. Method: OECD Test Guideline 301F: Ready Biodegradability-Manometric Respirometry Test

Mobility

Not available

#### **Bioaccumulative Potential**

Product: Not available

Xylene: Partition coefficient: 3.15

Benzenesulfonyl isocyanate, 4-methyl-Partition coefficient: 0.6

Toluene diisocyanate Partition coefficient: 3.43

Other Adverse Effects Not available

**Environmental Protection** Prevent this material entering waterways, drains and sewers.

Acute Toxicity - Fish Xylene: LC50 (Oncorhynchus mykiss): 2.6 mg/l/96h Method: OECD Test Guideline 203

Acute Toxicity - Daphnia Xylene: EC50 ( Daphnia magna ): 3.4 mg/l/48h

Acute Toxicity - Bacteria Xylene: EC50 (microorganisms): 0.0084 mg/l/24h

Hazardous to the Ozone Layer This product is not expected to deplete the ozone layer.

## Section 13 - Disposal Considerations

#### **Disposal Considerations**

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not re-use container. To minimise personal exposure, refer to Section 8 - Exposure Controls and Personal Protection.

## Section 14 - Transport Information

#### **Transport Information**

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

ADG U.N. Number None Allocated

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ADG Proper Shipping Name None Allocated ADG Transport Hazard Class None Allocated

ADG Packing Group None Allocated

Special Precautions for User Not available

IATA UN Number None Allocated

IATA Proper Shipping Name Not dangerous for conveyance under IATA code

IATA Transport Hazard Class None Allocated

IATA Packing Group None Allocated

IMDG UN Number None Allocated

IMDG Proper Shipping Name Not dangerous for conveyance under IMO/IMDG code

IMDG Transport Hazard Class None Allocated

IMDG Packing Group None Allocated

IMDG Marine pollutant No

Transport in Bulk Not available

## Section 15 - Regulatory Information

#### **Regulatory Information**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule Not Scheduled

Australia (AICS/AIIC) All components of this product are listed on the Inventory or exempted.

Montreal Protocol Not Listed

Stockholm Convention Not Listed

Rotterdam Convention Not Listed

**International Convention for the Prevention of Pollution from Ships (MARPOL)** Not available

Agricultural and Veterinary Chemicals Act 1994 Not available

Basel Convention Not available

## Section 16 - Any Other Relevant Information

#### Date of Preparation SDS Created: March 2023

#### Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

#### **Contact Person/Point**

IMPORTANT ADVICE: Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, James Hardie, makes no representations as to the completeness or accuracy thereof. Information is supplied on the conditions that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will James Hardie or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

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