

## Safety Data Sheet

### MAPEPROOF 1K TURBO

Safety Data Sheet dated: 14/03/2023 - version 5

Date of first edition: 28/08/2019



## Section 1: Identification

### GHS Product identifier

Mixture identification:

Trade name: MAPEPROOF 1K TURBO

Trade code: 9028218

### Recommended use of the chemical and restrictions on use

Recommended use: Polyurethane primer

Uses advised against: Data not available.

### Supplier's details

Company: MAPEI AUSTRALIA Pty Ltd

180 Viking Drive Wacol QLD 4076 Australia

T. +61 7 32765000 (Mon-Fri 8am to 4.30pm)

F. +61 7 32765076

Responsible: sales@mapei.com.au

### Emergency phone number

Australian Poisons Information Centre 24 Hour Service 13 11 26

Police or Fire Brigade 000

## Section 2: Hazard(s) identification



### Classification of the Hazardous chemical

Skin irritation, Category 2

Causes skin irritation.

Eye irritation, Category 2A

Causes serious eye irritation.

Respiratory Sensitisation, Category 1

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

Skin Sensitisation, Category 1

May cause an allergic skin reaction.

Carcinogenicity, Category 2

Suspected of causing cancer if inhaled, in contact with skin and if swallowed.

Specific target organ toxicity — single exposure, Category 3

May cause respiratory irritation.

Specific target organ toxicity — repeated exposure, Category 2

May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Adverse physicochemical, human health and environmental effects:

No other hazards

### GHS label elements, including precautionary statements

#### Pictograms and Signal Words



Danger

#### Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer if inhaled, in contact with skin and if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

#### Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/clothing and eye/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention, if you feel unwell.
P321	Specific treatment (see supplementary instructions on this label)
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with applicable regulations.

**Other hazards which do not result in a classification**

Other Hazards: No other hazards

**Section 3: Composition and information on ingredients**

**Substances**

no data available

**Mixtures**

Mixture identification: MAPEPROOF 1K TURBO

**Hazardous components within the meaning of the "Australian Work Health and Safety (WHS)" regulation and related classification:**

Qty	Name	Ident. Numb.	Classification	Registration Number
≥25 - <50 %	prepolymer based on aromatic polyisocyanate	CAS:67815-87-6 EC:642-899-8	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT SE 3, H335; STOT RE 2, H373	
≥25 - <50 %	diphenylmethane-4,4'-diisocyanate	CAS:101-68-8 EC:202-966-0 Index:615-005-00-9	Acute Tox. 4, H332 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT RE 2, H373 Carc. 2, H351  Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0,1%: Resp. Sens. 1 H334	01-2119457014-47-XXXX
≥20 - <25 %	o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	CAS:5873-54-1 EC:227-534-9 Index:615-005-00-9	Carc. 2, H351 STOT RE 2, H373 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Acute Tox. 4, H332  Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0,1%: Resp. Sens. 1 H334	01-2119480143-45-0000

≥10 - <20 %	diphenylmethanediisocyanate isomers and homologues	CAS:9016-87-9 EC:618-498-9 Index:615-005-00-9	Acute Tox. 4, H332 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT RE 2, H373 Carc. 2, H351	
			Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0,1%: Resp. Sens. 1 H334	
≥1 - <2.5 %	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	CAS:2536-05-2 EC:219-799-4 Index:615-005-00-9	Carc. 2, H351 STOT RE 2, H373 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Acute Tox. 4, H332	01-2119927323-43-XXXX
			Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0,1%: Resp. Sens. 1 H334	

## Section 4: First-aid measures

### Description of necessary first-aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

- If breathing is irregular or stopped, administer artificial respiration.
- In case of inhalation, consult a doctor immediately and show him packing or label.

### Symptoms caused by exposure

- Eye irritation
- Eye damages
- Skin Irritation
- Erythema

### Medical attention and special treatment

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

## Section 5: Firefighting measures

### Suitable extinguishing media

- None in particular.
- Water.
- Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

- None in particular.

### Specific hazards arising from the chemical

- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.
- Hazardous combustion products: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

### Special protective equipment and precautions for fire-fighters

- Use suitable breathing apparatus.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Move undamaged containers from immediate hazard area if it can be done safely.

## HazChem Code/Emergency Action code

N.A.

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## Section 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- Wear personal protection equipment.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Provide adequate ventilation.
- Use appropriate respiratory protection.

### Environmental precautions

- Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
- Limit leakages with earth or sand.

### Methods and material for containment and cleaning up

- Suitable material for taking up: absorbing material, organic, sand
- Wash with plenty of water.
- Retain contaminated washing water and dispose it.

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## Section 7: Handling and storage

### Precautions for safe handling

- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Exercise the greatest care when handling or opening the container.
- Do not use on extensive surface areas in premises where there are occupants.
- Use localized ventilation system.
- Don't use empty container before they have been cleaned.
- Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
- Contaminated clothing should be changed before entering eating areas.
- Do not eat or drink while working.
- See also section 8 for recommended protective equipment.

### Conditions for safe storage, including any incompatibilities

- Always keep in a well ventilated place.
- Keep away from food, drink and feed.

### Incompatible materials:

- None in particular.

### Instructions as regards storage premises:

- Cool and adequately ventilated.

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## Section 8: Exposure controls and personal protection

### Control parameters – exposure standards, biological monitoring

#### Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
diphenylmethane-4,4'-diisocyanate CAS: 101-68-8	National	NORWAY	Long Term: 0,05 mg/m <sup>3</sup> - 0,005 ppm; Short Term: 0,01 ppm A 4
	National	SWEDEN	Ceiling - Long Term: 0,03 mg/m <sup>3</sup> - 0,002 ppm; Short Term: 0,05 mg/m <sup>3</sup> - 0,005 ppm SWEDEN, Ceiling limit value
	ACGIH		Long Term: 0,005 ppm Resp sens
	National	POLAND	Long Term: 0,03 mg/m <sup>3</sup> ; Short Term: 0,09 mg/m <sup>3</sup>
	National	AUSTRIA	Long Term: 0,05 mg/m <sup>3</sup> - 0,005 ppm; Short Term: 0,1 mg/m <sup>3</sup> - 0,01 ppm
	ACGIH		Long Term: 0,005 ppm respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
	AUS OSHA	AUSTRALIA	Long Term: 0,02 mg/m <sup>3</sup> ; Short Term: 0,07 mg/m <sup>3</sup> Ceiling - Short Term: 0,2 mg/m <sup>3</sup> - 0,02 ppm
	National	SWEDEN	Long Term: 0,03 mg/m <sup>3</sup> - 0,002 ppm
	National	FRANCE	Long Term: 0,1 mg/m <sup>3</sup> - 0,01 ppm; Short Term: 0,2 mg/m <sup>3</sup> - 0,02 ppm
	National	SPAIN	Long Term: 0,052 mg/m <sup>3</sup> - 0,005 ppm
National	DENMARK	Long Term: 0,05 mg/m <sup>3</sup> - 0,005 ppm	

National GERMANY	Long Term: 0,05 mg/m3
National PORTUGAL	Long Term: 0,005 ppm
National BELGIUM	Long Term: 0,052 mg/m3 - 0,005 ppm
National CZECH REPUBLIC	Long Term: 0,05 mg/m3
National HUNGARY	Long Term: 0,05 mg/m3; Short Term: 0,05 mg/m3
National ESTONIA	Long Term: 0,05 mg/m3 - 0,005 ppm; Short Term: 0,1 mg/m3 - 0,01 ppm
National CZECH REPUBLIC	Ceiling - Short Term: 0,1 mg/m3
National SLOVAKIA	Long Term: 0,002 mg/m3
National SLOVAKIA	Long Term: 0,03 mg/m3
National SLOVENIA	Long Term: 0,05 mg/m3; Short Term: 0,05 mg/m3
National ROMANIA	Short Term: 0,15 mg/m3
National LITHUANIA	Long Term: 0,05 mg/m3 - 0,005 ppm
National LITHUANIA	Ceiling - Short Term: 0,1 mg/m3 - 0,01 ppm
ACGIH	Long Term: 0,005 ppm respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
OSHA	Ceiling - Short Term: 0,2 mg/m3 - 0,02 ppm
National NORWAY	Long Term: 0,05 mg/m3 - 0,005 ppm; Short Term: 0,01 ppm
National SLOVENIA	Long Term: 0,05 mg/m3 - 0,005 ppm; Short Term: 0,05 mg/m3 - 0,005 ppm

o-(p-isocyanatobenzyl)phenyl isocyanate;  
diphenylmethane-2,4'-diisocyanate  
CAS: 5873-54-1

National SLOVENIA	Long Term: 0,05 mg/m3; Short Term: 0,05 mg/m3
ACGIH	Long Term: 0,05 ppm

diphenylmethanediisocyanate isomers and homologues  
CAS: 9016-87-9

AUS AUSTRALIA	Long Term: 0,02 mg/m3; Short Term: 0,07 mg/m3
National GERMANY	Long Term: 0,05 mg/m3
National SLOVENIA	Long Term: 0,05 mg/m3; Short Term: 0,05 mg/m3
ACGIH	Long Term: 0,051 mg/m3

2,2'-methylenediphenyl diisocyanate;  
diphenylmethane-2,2'-diisocyanate  
CAS: 2536-05-2

National GERMANY	Long Term: 0,05 mg/m3
National SLOVENIA	Long Term: 0,05 mg/m3; Short Term: 0,05 mg/m3

### Predicted No Effect Concentration (PNEC) values

diphenylmethane-4,4'-diisocyanate  
CAS: 101-68-8

Exposure Route: Fresh Water; PNEC Limit: 1 mg/l  
Exposure Route: Marine water; PNEC Limit: 0,1 mg/l  
Exposure Route: Soil; PNEC Limit: 1 mg/kg  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l  
Exposure Route: Intermittent release; PNEC Limit: 10 mg/l

o-(p-isocyanatobenzyl)phenyl isocyanate;  
diphenylmethane-2,4'-diisocyanate  
CAS: 5873-54-1

Exposure Route: Fresh Water; PNEC Limit: 1 mg/l  
Exposure Route: Marine water; PNEC Limit: 0,1 mg/l  
Exposure Route: Soil; PNEC Limit: 1 mg/kg  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l

2,2'-methylenediphenyl diisocyanate;  
Exposure Route: Fresh Water; PNEC Limit: 1 mg/l

diphenylmethane-2,2'-  
diisocyanate  
CAS: 2536-05-2

Exposure Route: Marine water; PNEC Limit: 0,1 mg/kg

Exposure Route: Soil; PNEC Limit: 1 mg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l

#### Derived No Effect Level (DNEL) values

diphenylmethane-4,4'-  
diisocyanate  
CAS: 101-68-8

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 50 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 0,1 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Industry: 0,1 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Industry: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Consumer: 25 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects  
Consumer: 20 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects  
Worker Industry: 28,7 mg/cm<sup>2</sup>; Consumer: 17,2 mg/cm<sup>2</sup>

o-(p-  
isocyanatobenzyl)phenyl  
isocyanate;  
diphenylmethane-2,4'-  
diisocyanate  
CAS: 5873-54-1

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 50 mg/kg; Consumer: 25 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 0,1 mg/m<sup>3</sup>; Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects  
Worker Industry: 28,7 mg/cm<sup>2</sup>; Consumer: 17,2 mg/cm<sup>2</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Industry: 0,1 mg/m<sup>3</sup>; Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 0,05 mg/m<sup>3</sup>; Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Industry: 0,05 mg/m<sup>3</sup>; Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects  
Consumer: 20 mg/kg

2,2'-methylenediphenyl  
diisocyanate;  
diphenylmethane-2,2'-  
diisocyanate  
CAS: 2536-05-2

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 50 mg/kg; Consumer: 25 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 0,1 mg/m<sup>3</sup>; Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects  
Worker Industry: 28,7 mg/cm<sup>2</sup>; Consumer: 17,2 mg/cm<sup>2</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Industry: 0,1 mg/m<sup>3</sup>; Consumer: 0,05 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 0,05 mg/m<sup>3</sup>; Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Industry: 0,05 mg/m<sup>3</sup>; Consumer: 0,025 mg/m<sup>3</sup>

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 20 mg/kg

### Appropriate engineering controls

no data available

### Individual protection measures, such as personal protective equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; AS/NZS 2161.10:

Polychloroprene - CR: thickness  $\geq 0,5$ mm; breakthrough time  $\geq 480$ min.

Nitrile rubber - NBR: thickness  $\geq 0,35$ mm; breakthrough time  $\geq 480$ min.

Butyl rubber - IIR: thickness  $\geq 0,5$ mm; breakthrough time  $\geq 480$ min.

Fluorinated rubber - FKM: thickness  $\geq 0,4$ mm; breakthrough time  $\geq 480$ min.

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to AS/NZS 1715-1716 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

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## Section 9: Physical and chemical properties

Physical state: Liquid

Appearance: liquid

Color: light brown

Odour: Characteristic

pH: no data available

Melting point / freezing point: no data available

Initial boiling point and boiling range: 350 °C (662 °F)

Flash point: no data available

Evaporation rate: no data available

Flammability (Solid, Gas) no data available

Lower and upper explosion limit/flammability limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: no data available

Solubility in water: insoluble, reacts

Solubility in oil: no data available

Partition coefficient (n-octanol/water): no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Kinematic viscosity: no data available

VOC % (Volatile Organic Compound) : 0 (Rule 1168) g/l

### Particle characteristics:

Particle size: no data available

Particle size distribution: no data available

Shape and aspect ratio: no data available

Specific surface area: no data available

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## Section 10: Stability and reactivity

### Reactivity

Stable under normal conditions

**Chemical stability**

no data available

**Possibility of hazardous reactions**

None.

**Conditions to avoid**

Stable under normal conditions.

**Incompatible materials**

None in particular.

**Hazardous decomposition products**

None.

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**Section 11: Toxicological information**

**Information on toxicological effects**

**Toxicological Information of the Preparation**

- |                                      |  |
|--------------------------------------|--|
| a) acute toxicity                    | Not classified<br>Based on available data, the classification criteria are not met                           |
| b) skin corrosion/irritation         | The product is classified: Skin irritation, Category 2(H315)   |
| c) serious eye damage/irritation     | The product is classified: Eye irritation, Category 2A(H319)   |
| d) respiratory or skin sensitisation | The product is classified: Respiratory Sensitisation, Category 1(H334), Skin Sensitisation, Category 1(H317) |
| e) germ cell mutagenicity            | Not classified<br>Based on available data, the classification criteria are not met                           |
| f) carcinogenicity                   | The product is classified: Carcinogenicity, Category 2(H351)   |
| g) reproductive toxicity             | Not classified<br>Based on available data, the classification criteria are not met                           |
| h) STOT-single exposure              | The product is classified: Specific target organ toxicity — single exposure, Category 3(H335)                |
| i) STOT-repeated exposure            | The product is classified: Specific target organ toxicity — repeated exposure, Category 2(H373)              |
| j) aspiration hazard                 | Not classified<br>Based on available data, the classification criteria are not met                           |

**Toxicological information on main components of the mixture:**

- |  |                                      |   |      |
|--|--------------------------------------|---|------|
| prepolymer based on aromatic polyisocyanate                    | a) acute toxicity                    | LD50 Skin Rat > 9400 mg/kg                            |      |
|  |                                      | LC50 Inhalation Rat 310 mg/m <sup>3</sup> 4h          |      |
|  |                                      | LD50 Oral Rat > 2000 mg/kg                            |      |
|  | b) skin corrosion/irritation         | Skin Irritant Positive                                |      |
|  | d) respiratory or skin sensitisation | Skin Sensitization Mouse Positive                     |      |
|  | e) germ cell mutagenicity            | NOAEL Inhalation Rat = 12 mg/m <sup>3</sup>           |      |
| diphenylmethane-4,4'-diisocyanate                              | a) acute toxicity                    | LD50 Oral Rat > 2000 mg/kg                            |      |
|  |                                      | LD50 Skin Rabbit > 9400 mg/kg                         |      |
|  | b) skin corrosion/irritation         | Skin Irritant Skin Rabbit Positive                    |      |
|  | d) respiratory or skin sensitisation | Skin Sensitization Skin Mouse Positive                |      |
|  |                                      | Respiratory Sensitization Inhalation Positive         |      |
|  | f) carcinogenicity                   | Carcinogenicity Inhalation Rat = 6, mg/m <sup>3</sup> | 2 y  |
|  | g) reproductive toxicity             | NOAEL Inhalation Rat = 12, mg/m <sup>3</sup>          | 20 d |
| o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'- | a) acute toxicity                    | LD50 Skin Rabbit > 9400 mg/kg                         |      |

diisocyanate

LD50 Oral Rat > 2000 mg/kg

e) germ cell mutagenicity NOAEL Inhalation Rat = 12 mg/m<sup>3</sup>

diphenylmethanediisocyanate isomers and homologues

LD50 Oral Rat > 10000 mg/kg

LD50 Skin Rabbit > 9400 mg/kg

LC50 Inhalation Dust Rat = 0,31 mg/l 4h

LD50 Skin Rabbit > 9,4 g/kg

LC50 Inhalation Rat = 490 mg/m<sup>3</sup> 4h

LD50 Oral Rat = 49 g/kg

g) reproductive toxicity NOAEL Inhalation Rat = 12 mg/m<sup>3</sup>

2,2'-methylene-diphenyl diisocyanate;  
diphenylmethane-2,2'-diisocyanate

LD50 Oral Rat > 2000 mg/kg

LC50 Inhalation Dust Rat = 0,527 mg/l 4h

LD50 Skin Rabbit > 9400 mg/kg

e) germ cell mutagenicity NOAEL Inhalation Rat = 12 mg/m<sup>3</sup>

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## Section 12: Ecological information

### Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

### List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

### List of Eco-Toxicological properties of the components

#### Component

#### Ident. Numb. Ecotox Data

prepolymer based on aromatic polyisocyanate

CAS: 67815-87-6 - EINECS: 642-899-8

a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96

a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24

b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d

a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72

c) Bacteria toxicity : EC50 > 100 mg/L 3

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8 - EINECS: 202-966-0 - INDEX: 615-005-00-9

a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96

a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24

b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d

a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72

c) Bacteria toxicity : EC50 > 100 mg/L 3

d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d

e) Plant toxicity : NOEC > 1000 mg/kg - 14 d

o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate

CAS: 5873-54-1 - EINECS: 227-534-9 - INDEX: 615-005-00-9

a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96

a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24

b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d

a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72

		c) Bacteria toxicity : EC50 > 100 mg/L 3
		d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d
		e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
diphenylmethanediisocyanate isomers and homologues	CAS: 9016-87-9 - EINECS: 618-498-9 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24
		b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d
		a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72
		c) Bacteria toxicity : EC50 > 100 mg/L 3
		d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d
		e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	CAS: 2536-05-2 - EINECS: 219-799-4 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24
		b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d
		a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72
		c) Bacteria toxicity : EC50 > 100 mg/L 3
		e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
		d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**Other adverse effects**

no data available

**Section 13: Disposal considerations**

**Disposal methods**

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

no data available

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

**Section 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.

**UN number**

no data available

**UN proper shipping name**

no data available

**Transport hazard class(es)**

no data available

**Packing group, if applicable**

no data available

**Environmental hazards**

no data available

**Special precautions for user**

ADG-Subsidiary hazards no data available

ADG-S.P.: no data available

Road and Rail (ADR-RID):

no data available

Air (IATA):

no data available

Sea (IMDG):

no data available

**Additional Information**

no data available

**HazChem Code/Emergency Action code**

no data available

**Section 15: Regulatory information****Safety, health and environmental regulations specific for the product in question**

This Safety Data Sheet has been prepared according to the Australian Work Health and Safety (WHS) act and the Code of Practice on preparation of safety data sheets for Hazardous Chemicals.

AICIS: all components are listed

**Section 16: Any other relevant information**

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ATE: Acute Toxicity Estimate  
ATEmix: Acute toxicity Estimate (Mixtures)  
BCF: Biological Concentration Factor  
BEI: Biological Exposure Index  
BOD: Biochemical Oxygen Demand  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CAV: Poison Center  
CE: European Community  
CLP: Classification, Labeling, Packaging.  
CMR: Carcinogenic, Mutagenic and Reprotoxic  
COD: Chemical Oxygen Demand  
COV: Volatile Organic Compound  
CSA: Chemical Safety Assessment  
CSR: Chemical Safety Report  
DMEL: Derived Minimal Effect Level  
DNEL: Derived No Effect Level.  
DPD: Dangerous Preparations Directive  
DSD: Dangerous Substances Directive  
EC50: Half Maximal Effective Concentration  
ECHA: European Chemicals Agency  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ES: Exposure Scenario  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
KAFH: KAFH  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
NA: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 11. TOXICOLOGICAL INFORMATION

- 16. OTHER INFORMATION