**Safety Data Sheet**
**MAPEFLOOR PU 400 comp. B**
Safety Data Sheet dated: 19/4/2019 - version 1

## Section 1. Identification of the substance and supplier

### Product identifier

Mixture identification:

Trade name: MAPEFLOOR PU 400 comp. B

Trade code: 9025896

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

Recommended use: Hardener for polyurethane-based adhesives

Uses advised against: N.A.

### Supplier's details

Company: Mapei New Zealand Ltd - 30 Fisher Crescent - Mt Wellington - Auckland - New Zealand

Phone: +64 9 921 1994 (Mon-Fri 9am-5pm) - Fax: +64 9 921 1993 - www.mapei.co.nz - enquiries@mapei.co.nz

### Emergency phone number

New Zealand Poisons Centre: Ph: 0800 764 766

## Section 2. Hazards identification

### HSNO hazard classification

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2017.

### HSNO classification:

| | |
|---|---|
| 6.4A | H319 - Causes serious eye irritation. |
| 6.5A | H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| 6.5B | H317 - May cause an allergic skin reaction. |
| 6.7B | H351.G - Suspected of causing cancer if inhaled, in contact with skin and if swallowed. |

### Hazard information

#### Pictograms and Signal Words

Danger

### Hazard statements:

| | |
|---|---|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H351 | Suspected of causing cancer 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. |
| P261 | Avoid breathing mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P281 | Use personal protective equipment as required. |
| P285 | In case of inadequate ventilation wear respiratory protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+P341 | IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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. |
| 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. |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with applicable regulations. |

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

No other hazards

## Section 3. Composition/information on ingredients

**Substances**

N.A.

**Mixtures**

Mixture identification: MAPEFLOOR PU 400 comp. B

**Hazardous components within the meaning of HSNO Act and related classification**

| Quantity | Name | Ident. Numb. | Classification |
|---|---|---|---|
| ≥75 - <100 % | 2,4-Diisocyanatotoluene-polypropylene glycol copolymer | CAS:37273-56-6 | 6.4A, H319; 6.5B, H317 |
| ≥0.25 - <0.49 % | 4-methyl-m-phenylene diisocyanate | CAS:584-84-9<br>EC:209-544-5<br>Index:615-006-00-4 | 6.7B, H351; 6.4A, H319; 6.1E (respiratory tract irritant), H335; 6.3A, H315; 6.5A, H334; 6.5B, H317; 9.1C, H412; 6.1A (inhalation), H330 |

## 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 opthalmologist 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:

Remove casualty to fresh air and keep warm and at rest.

**Indication of immediate medical attention and special treatment needed, if necessary**

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

**Most important symptoms/effects, acute and delayed**

Eye irritation

Eye damages

## Section 5. Fire-fighting measures

**Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide ($CO_2$).

Unsuitable extinguishing media:

None in particular.

**Specific hazards arising from the chemical**

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

**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.

## Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

**Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

**Methods and materials for containment and cleaning up**

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

## 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.

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**

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

## Section 8. Exposure controls/personal protection

**Workplace Exposure Standards**

**List of components with OEL value**

| Component | OEL Type | Country | Ceiling | Long Term mg/m3 | Long Term ppm | Short Term mg/m3 | Short Term ppm | Behaviour | Note |
|---|---|---|---|---|---|---|---|---|---|
| 4-methyl-m-phenylene diisocyanate | NZL | NEW ZEALAND | | 0,02 | | 0,07 | | | |

**Biological Exposure Index**

| CAS-No. | Component | Value | UoM | Medium | Biological Indicator | Sampling Period |
|---|---|---|---|---|---|---|
| 584-84-9 | 4-methyl-m-phenylene diisocyanate | 5 | MICROGGCREAT | Urine | Toluenediamine isomers with hydrolysis | End of turn |

**Predicted No Effect Concentration (PNEC) values**

| Component | CAS-No. | PNEC LIMIT | Exposure Route | Exposure Frequency | Remark |
|---|---|---|---|---|---|
| 4-methyl-m-phenylene diisocyanate | 584-84-9 | 0,013 mg/l | Fresh Water | | |
| | | 0,00125 mg/l | Marine water | | |
| | | 1 mg/kg | Soil | | |
| | | 1 mg/l | Microorganisms in sewage treatments | | |

**Derived No Effect Level. (DNEL)**

| Component | CAS-No. | Worker Industry | Worker Professional | Consumer | Exposure Route | Exposure Frequency | Remark |
|---|---|---|---|---|---|---|---|
| 4-methyl-m-phenylene diisocyanate | 584-84-9 | 0,14 mg/m3 | | | Human Inhalation | Short Term, systemic effects | |
| | | 0,14 mg/m3 | | | Human Inhalation | Short Term, local effects | |
| | | 0,035 mg/m3 | | | Human Inhalation | Long Term, systemic effects | |
| | | 0,035 mg/m3 | | | Human Inhalation | Long Term, local effects | |

**Engineering Controls**

N.A.

**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:

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

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Thermal Hazards:

N.A.

## Section 9. Physical and chemical properties

Physical state: Liquid
Appearance and colour: liquid yellow
Odour: characteristic
Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Flash point: 190 °C (374 °F)
Flammability (Solid, Gas): N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour pressure: 0.00
Vapour density: N.A.
Relative density: 1.05 g/cm3
Solubility in water: insolubile, reagisce
Solubility in oil: partly soluble
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Kinematic viscosity: N.A.
Particle characteristics: No Data Available
Viscosity: 7,000.00 cPs

## Section 10. Stability and reactivity

**Reactivity**

Stable under normal conditions

**Chemical stability**

Data not available.

**Possibility of hazardous reactions**

None.

**Conditions to avoid**

Stable under normal conditions.

**Incompatible materials**

None in particular.

**Hazardous decomposition products**

## Section 11. Toxicological information

**Information on toxicological effects**

**Toxicological information of the mixture:**

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

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

| | | | |
|---|---|---|---|
| 2,4-Diisocyanatotoluene-polypropylene glycol copolymer | a) acute toxicity | LD50 Oral Rat > 5000 mg/kg | |
| | | LC50 Inhalation Rat > 3,820 mg/l 4h | |
| 4-methyl-m-phenylene diisocyanate | a) acute toxicity | LD50 Oral Rat = 5110 mg/kg | male |
| | | LD50 Oral Rat = 4130 mg/kg | female |
| | | LD50 Skin Rabbit > 9400 mg/kg | |
| | | LC50 Inhalation Vapour Rat = mg/l 1h | |
| | | LC50 Inhalation Vapour Rat = mg/l 4h | |
| | | LC50 Inhalation Rat = 14 ppm 4h | |
| | | LD50 Oral Rat = 5800 mg/kg | |
| | d) respiratory or skin sensitisation | Skin Sensitization Skin Positive | |
| | f) carcinogenicity | Carcinogenicity Inhalation Rat = ppm | 2 y |
| | g) reproductive toxicity | NOAEL Inhalation Rat ppm | 21 d |

**If not differently specified, the information required in the regulation and listed below must be considered as N.A.**

a) acute toxicity

b) skin corrosion/irritation

c) serious eye damage/irritation

d) respiratory or skin sensitisation

e) germ cell mutagenicity

f) carcinogenicity

g) reproductive toxicity

h) STOT-single exposure

i) STOT-repeated exposure

j) aspiration hazard

## Section 12. Ecological information

**Ecotoxicity**

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

Eco-Toxicological Information:

**List of components with eco-toxicological properties**

| Quantity | Component | Ident. Numb. | Ecotox Infos |
|---|---|---|---|
| >=75 - <100 % | 2,4-Diisocyanatotoluene-polypropylene glycol copolymer | CAS: 37273-56-6 | c) Bacteria toxicity : EC50 > 10000 mg/L |
| >=0.25 - <0.49 % | 4-methyl-m-phenylene diisocyanate | CAS: 584-84-9 - EINECS: 209-544-5 - INDEX: 615-006-00-4 | a) Aquatic acute toxicity : EC50 Daphnia = mg/L 48 |
| | | | a) Aquatic acute toxicity : LC50 Fish = 133 mg/L 96 |
| | | | b) Aquatic chronic toxicity : NOEC Daphnia = mg/L - 21 d |
| | | | a) Aquatic acute toxicity : EC50 Algae = 4300 mg/L 96 |
| | | | c) Bacteria toxicity : EC50 > 100 mg/L 3 |

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

e) Plant toxicity : NOEC > 1000 mg/kg - 17 d

a) Aquatic acute toxicity : EC50 Algae = 3230 mg/L 96

**Persistence and degradability**

N.A.

**Bioaccumulative potential**

N.A.

**Mobility in soil**

N.A.

**Other adverse effects**

N.A.

## Section 13. Disposal considerations

**Disposal methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

**Special precautions to be taken during disposal**

No Data Available

## Section 14. Transport information

Not classified as dangerous in the meaning of transport regulations.

**UN number**

N.A.

**UN proper shipping name**

N.A.

**Transport hazard class(es)**

N.A.

**Packing group, if applicable**

N.A.

**Environmental hazards**

N.A.

No

**Special precautions for user**

NZS-Subsidiary risks: N.A.

NZS-Special Dispositions: N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

## Section 15. Regulatory information

**HSNO Approval**

HSNO approval number and group standard title:

HSR002679 - Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2006

**HSNO Controls**

**Certified Handler**

No Data Available

**New Zealand Inventory of Chemicals (NZIoC)**

All components are listed on the NZIoC Inventory.

**Regulatory references**

Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 09-06).

Hazardous Substances (Classification) Regulations 2001.

Labelling of Hazardous Substances: Hazard and Precautionary Information (January 2012 EPA0094).

Assigning a Product to a HSNO Approval (May 2013/Revised June 2014).

## Section 16. Other information

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| Code | Description |
|---|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer . |
| H351 | Suspected of causing cancer if inhaled, in contact with skin and if swallowed. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Description of the HSNO Classification codes used in section 2 or 3:**

| Code | Description |
|---|---|
| 6.1A (inhalation) | Substances that are acutely toxic - Fatal (inhalation). |
| 6.1E (respiratory tract irritant) | Respiratory tract irritant. |
| 6.3A | Substances that are irritating to the skin. |
| 6.4A | Substances that are irritating to the eye. |
| 6.5A | Substances that are respiratory sensitisers. |
| 6.5B | Substances that are contact sensitisers. |
| 6.7B | Substances that are suspected human carcinogens. |
| 9.1C | Substances that are harmful in the aquatic environment. |

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:

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

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.

HSNO: Hazardous Substances and New Organisms Act 1996.