

## Safety Data Sheet

### MAPEFLEX P2 SL PART B

Safety Data Sheet dated: 08/17/2021 - version 4

Date of first edition: 03/23/2017



## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: MAPEFLEX P2 SL PART B

Trade code: 9019102

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

Recommended use: Hardener for polyurethane-based adhesives

Restrictions on use: Not available

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Responsible: RDProductSafety@mapei.com

### Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Resp. Sens. 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	May cause an allergic skin reaction.
Carc. 2	Suspected of causing cancer if inhaled, in contact with skin and if swallowed.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

### Label elements

#### Hazard pictograms and Signal Word



Danger

#### Hazard statements

H317	May cause an allergic skin reaction.
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.
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.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

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.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

**Ingredient(s) with unknown acute toxicity:**

None

**Hazards not otherwise classified identified during the classification process:**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

Not available

**Mixtures**

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

**List of components**

Concentration (%) w/w)	Name	Ident. Numb.	Classification	Registration Number
1-2.5 %	4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-	CAS:101-68-8 EC:202-966-0 Index:615-005-00-9	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; STOT RE 2, H373; Carc. 2, H351; Resp. Sens. 1, H334; Skin Sens. 1, H317	

**4. FIRST AID MEASURES**

**Description of first aid measures**

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Obtain medical attention if skin related symptoms persist.
- Remove contaminated clothing immediately and dispose of safely.

In case of eyes contact:

- Wash immediately with water.

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.

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

Not available

**Indication of any immediate medical attention and special treatment needed**

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

Treatment:

- (see paragraph 4.1)

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO2).

**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: Not available

Explosive properties: Not available

Oxidizing properties: Not 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.

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## 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.

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

Retain contaminated washing water and dispose it.

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## 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.

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

Storage temperature: Not available

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### 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
4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-	ACGIH				0.005				respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI));
	OSHA		C			0.2	0.02		
	MAK	GERMANY		0.05					respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
	ACGIH				0.005				
	MAK	AUSTRIA		0.05	0.005	0.1	0.01		

Appropriate engineering controls: Not available

### Individual protection measures

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; 29 CFR 1910.138 - ANSI/ISEA 105:

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

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

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

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

Use impervious 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 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Yellow

Odour: Characteristic

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: 94 °C (201 °F)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 1.00 g/cm<sup>3</sup>

Solubility in water: insoluble

Solubility in oil: partly soluble

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

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

### Other information

Substance Groups relevant properties No data available

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

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## 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

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the product:

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 of the main substances found in the product:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

a) acute toxicity LC50 Inhalation Rat = 369 mg/m<sup>3</sup> 4h

LD50 Oral Rat = 31600 mg/kg

**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
- Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

**Substance(s) listed on the IARC Monographs:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

Group 3

**Substance(s) listed as OSHA Carcinogen(s):**

None

**Substance(s) listed as NIOSH Carcinogen(s):**

None

**Substance(s) listed on the NTP report on Carcinogens:**

None

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**12. ECOLOGICAL INFORMATION**

**Toxicity**

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**

No data available

**Persistence and degradability**

Not available

**Bioaccumulative potential**

Not available

**Mobility in soil**

Not available

**Other adverse effects**

Not available

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**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

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

Methods of disposal:

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.

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## 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

**UN number**

ADR-UN number: Not available

DOT-UN Number: Not available

IATA-Un number: Not available

IMDG-Un number: Not available

**UN proper shipping name**

ADR-Shipping Name: Not available

DOT-Proper Shipping Name: Not available

IATA-Technical name: Not available

IMDG-Technical name: Not available

**Transport hazard class(es)**

ADR-Class: Not available

DOT-Hazard Class: Not available

IATA-Class: Not available

IMDG-Class: Not available

**Packing group**

ADR-Packing Group: Not available

DOT-Packing group: Not available

IATA-Packing group: Not available

IMDG-Packing group: Not available

**Environmental hazards**

Marine pollutant: No

Environmental Pollutant: Not available

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not available

**Special precautions**

Department of Transportation (DOT):

Not available

Road and Rail (ADR-RID) :

Not available

Air (IATA) :

Not available

Sea (IMDG) :

Not available

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## 15. REGULATORY INFORMATION

### USA - Federal regulations

#### TSCA - Toxic Substances Control Act

**TSCA inventory:**

All the components are listed on the TSCA inventory

**TSCA listed substances:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

is listed in TSCA Section 8b Section 8a - PAIR

**SARA - Superfund Amendments and Reauthorization Act**

**Section 302 - Extremely Hazardous Substances:**

No substances listed

**Section 304 - Hazardous substances:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

**Section 313 - Toxic chemical list:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

**CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act**

**Substance(s) listed under CERCLA:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato- Reportable quantity: 5000 pounds

**CAA - Clean Air Act**

**CAA listed substances:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato- is listed in CAA Section 112(b) - HAP Section 112(b) - HON

**CWA - Clean Water Act**

**CWA listed substances:**

No substances listed

**USA - State specific regulations**

**California Proposition 65**

**Substance(s) listed under California Proposition 65:**

No substances listed

**Massachusetts Right to know**

**Substance(s) listed under Massachusetts Right to know:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

**Pennsylvania Right to know**

**Substance(s) listed under Pennsylvania Right to know:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

**New Jersey Right to know**

**Substance(s) listed under New Jersey Right to know:**

4,4'-methylenediphenyl diisocyanate; benzene, 1,1'-methylenebis[4-isocyanato-

**Canada - Federal regulations**

**DSL - Domestic Substances List**

**DSL (Domestic Substances List)**

All the substances are listed in the DSL.

**NDSL - Non Domestic Substances List**

**NDSL (Non Domestic Substances List)**

No substances listed

**NPRI - National Pollutant Release Inventory**

**NPRI (National Pollutant Release Inventory) - List of substances listed.**

No substances listed

**16. OTHER INFORMATION**

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**Additional classification information**

NFPA Health: 1 = Slight

NFPA Flammability: 1 = Combustible if heated

NFPA Reactivity: 0 = Minimal

NFPA Special Risk: Not available

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

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.



NFPA

<b>Code</b>	<b>Description</b>
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.
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.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

**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.

**Paragraphs modified from the previous revision:**

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 4. FIRST AID MEASURES
- 6. ACCIDENTAL RELEASE MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 16. OTHER INFORMATION