

## Safety Data Sheet

### MAPEFLEX P2 SL PART A

Safety Data Sheet dated: 02/25/2023 - version 7

Date of first edition: 03/08/2017



## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: MAPEFLEX P2 SL PART A

Trade code: 9019101

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

Recommended use: Polyurethane-based adhesive

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

Flammable Liquids — Category 3

Eye irritation, Category 2A

Skin Sensitization, Category 1

Flammable liquid and vapour.

Causes serious eye irritation.

May cause an allergic skin reaction.

### Label elements

#### Hazard pictograms and Signal Word



Warning

### Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

### Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
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

This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possibly carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable amounts of titanium dioxide. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a dust hazard)

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

Not Relevant

**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
2.5-5 %	titanium dioxide; Dioxotitanium	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	
2.5-5 %	calcium oxide; quicklime	CAS:1305-78-8 EC:215-138-9	Skin Irrit. 2, H315; STOT SE 3, H335; Eye Dam. 1, H318	
1-2.5 %	xylenes; 1,2 dimethylbenzene	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315	
0.49-1 %	ethyl benzene; aethylbenzol	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; Asp. Tox. 1, H304	
0.1-0.25 %	bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate; Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	CAS:41556-26-7 EC:255-437-1	Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	

**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.
- 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:

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

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

Eye irritation

Eye damages

**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)

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## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

Suitable extinguishing media:

### 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.

Remove all sources of ignition.

Remove persons to safety.

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.

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 heat/sparks/open flames/hot surfaces. — No smoking.

Store in a well-ventilated place. Keep cool.

Avoid direct exposure to sunlight.

Opened containers must be carefully resealed and kept upright to prevent leakage.

Flammable mixtures may accumulate within the headspace of containers at room temperature.

Storage at higher temperatures requires an appropriate evaluation of preventive and protection measures to be adopted.

Storage temperature must be defined on the basis of a proper risk evaluation. Refer to other sections for additional information.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Electrical installations / working materials must comply with the technological safety standards.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

Storage temperature: Not available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### List of components with OEL value

	OEL Type	Country	Occupational Exposure Limit
titanium dioxide; Dioxotitanium CAS: 13463-67-7	OSHA		Long Term 15 mg/m <sup>3</sup>
	ACGIH		Long Term 10 mg/m <sup>3</sup> A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation;
	MAK	GERMANY	Long Term 0.3 mg/m <sup>3</sup>
	ACGIH		Long Term 10 mg/m <sup>3</sup> A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation
	MAK	AUSTRIA	Long Term 5 mg/m <sup>3</sup> ; Short Term 10 mg/m <sup>3</sup>
	MAK	SWITZERLAND	Long Term 3 mg/m <sup>3</sup>
calcium oxide; quicklime CAS: 1305-78-8	OSHA		Long Term 5 mg/m <sup>3</sup>
	ACGIH		Long Term 2 mg/m <sup>3</sup> upper respiratory tract irritation;
	MAK	GERMANY	Long Term 1 mg/m <sup>3</sup>
	ACGIH		Long Term 2 mg/m <sup>3</sup> upper respiratory tract irritation
	MAK	AUSTRIA	Long Term 1 mg/m <sup>3</sup> ; Short Term 4 mg/m <sup>3</sup>
	MAK	SWITZERLAND	Long Term 2 mg/m <sup>3</sup>
xylenes; 1,2 dimethylbenzene CAS: 1330-20-7	OSHA		Long Term 435 mg/m <sup>3</sup> - 100 ppm
	ACGIH		Long Term 100 ppm; Short Term 150 ppm A4 - Not Classifiable as a Human Carcinogen;CNS impairment;eye and upper respiratory tract irritation;
	EU		Long Term 221 mg/m <sup>3</sup> - 50 ppm; Short Term 442 mg/m <sup>3</sup> - 100 ppm Behaviour Indicative Possibility of significant uptake through the skin;
	MAK	GERMANY	Long Term 220 mg/m <sup>3</sup> - 50 ppm
	ACGIH		Long Term 100 ppm; Short Term 150 ppm A4 - Not Classifiable as a Human Carcinogen;CNS impairment;eye and upper respiratory tract irritation
	MAK	AUSTRIA	Long Term 221 mg/m <sup>3</sup> - 50 ppm; Short Term 442 mg/m <sup>3</sup> - 100 ppm
	MAK	SWITZERLAND	Long Term 435 mg/m <sup>3</sup> - 100 ppm
	EU		Long Term 221 mg/m <sup>3</sup> - 50 ppm; Short Term 442 mg/m <sup>3</sup> - 100 ppm Behaviour Indicative Possibility of significant uptake through the skin (pure)
ethyl benzene; aethylbenzol CAS: 100-41-4	OSHA		Long Term 435 mg/m <sup>3</sup> - 100 ppm
	ACGIH		Long Term 20 ppm

		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans; upper respiratory tract irritation; kidney damage (nephropathy); cochlear impairment;
EU		Long Term 442 mg/m <sup>3</sup> - 100 ppm; Short Term 884 mg/m <sup>3</sup> - 200 ppm Behaviour Indicative Possibility of significant uptake through the skin;
MAK	GERMANY	Long Term 88 mg/m <sup>3</sup> - 20 ppm
ACGIH		Long Term 20 ppm A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans; upper respiratory tract irritation; kidney damage (nephropathy); cochlear impairment
MAK	AUSTRIA	Long Term 440 mg/m <sup>3</sup> - 100 ppm; Short Term 880 mg/m <sup>3</sup> - 200 ppm
MAK	SWITZERLAND	Long Term 220 mg/m <sup>3</sup> - 50 ppm
	D	
EU		Long Term 442 mg/m <sup>3</sup> - 100 ppm; Short Term 884 mg/m <sup>3</sup> - 200 ppm Behaviour Indicative Possibility of significant uptake through the skin

### Biological Exposure Index

xylenes; 1,2  
dimethylbenzene  
CAS: 1330-20-7

Biological Indicator: Methyl uric Acid; Sampling Period: End of turn  
Value: 1.5 GGCREAT; Medium: Urine

ethyl benzene;  
aethylbenzol  
CAS: 100-41-4

Biological Indicator: Mandelic acid and fenilgliossalico; Sampling Period: End of turn; End of working week  
Value: 0.7 GGCREAT; Medium: Urine  
Remark: Not Specific; Semiquantitative

Biological Indicator: Ethylbenzene; Sampling Period: Not critical  
Medium: Air at the end of exhalation  
Remark: Semiquantitative

Biological Indicator: Mandelic acid and fenilgliossalico; Sampling Period: End of turn  
Value: 0.15 GGCREAT; Medium: Urine  
Remark: Not Specific

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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: paste Grey

Odour: Like: Xylene

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: 56.2 °C (133.2 °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: 1.70 g/cm<sup>3</sup>

Solubility in water: No data available  
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  
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

It may generate dangerous reactions (See subsections below)

### Chemical stability

It may generate dangerous reactions (See subsections below)

### Possibility of hazardous reactions

None.

### Conditions to avoid

Avoid accumulating electrostatic charge.

### Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the product:

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye irritation, Category 2A(H319)
d) respiratory or skin sensitisation	The product is classified: Skin Sensitization, Category 1(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

#### Toxicological information of the main substances found in the product:

titanium dioxide; a) acute toxicity LD50 Oral Rat > 10000 mg/kg  
Dioxotitanium

calcium oxide; quicklime a) acute toxicity LD50 Oral Rat = 500 mg/kg

xylenes; 1,2 a) acute toxicity LC50 Inhalation Rat = 47635 mg/l 4h

dimethylbenzene

LD50 Oral Rat = 4300 mg/kg  
LD50 Skin Rabbit > 4350 mg/kg  
LC50 Inhalation Rat = 29.08 mg/l 4h  
LD50 Oral Rat = 3500 mg/kg

ethyl benzene;  
aethylbenzol

a) acute toxicity

LD50 Skin Rabbit = 15354 mg/kg  
  
LC50 Inhalation Rat = 172 mg/l 4h  
LD50 Oral Rat = 3500 mg/kg  
LD50 Skin Rabbit = 15400 mg/kg  
LC50 Inhalation Rat = 17.4 mg/l 4h  
LD50 Oral Rat = 3500 mg/kg

bis(1,2,2,6,6-  
pentamethyl-4-piperidyl)  
sebacate; Decanedioic  
acid, bis(1,2,2,6,6-  
pentamethyl-4-  
piperidiny) ester

a) acute toxicity

LD50 Oral Rat = 2615 mg/kg

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

titanium dioxide; Dioxititanium    Group 2B  
xylenes; 1,2 dimethylbenzene    Group 3  
ethyl benzene; aethylbenzol    Group 2B

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

titanium dioxide; Dioxititanium  
ethyl benzene; aethylbenzol

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

titanium dioxide; Dioxititanium

**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**

Not classified for environmental hazards  
Based on available data, the classification criteria are not met

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

Component	Ident. Numb.	Ecotox Infos
calcium oxide; quicklime	CAS: 1305-78-8 - EINECS: 215-138-9	a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio = 1070 mg/L 96h IUCLID
xylenes; 1,2 dimethylbenzene	CAS: 1330-20-7 - EINECS: 215-535-7 - INDEX: 601-022-00-9	a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio = 780 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 13.4 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 2.661 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 13.5 mg/L 96h IUCLID

ethyl benzene; aethylbenzol CAS: 100-41-4 - EINECS: 202-849-4 - INDEX: 601-023-00-4

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 13.1 mg/L 96h EPA  
a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 19 mg/L 96h EPA  
a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 7.711 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 23.53 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio > 780 mg/L 96h IUCLID  
a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata 30.26 mg/L 96h EPA  
a) Aquatic acute toxicity : EC50 Daphnia water flea = 3.82 mg/L 48h  
a) Aquatic acute toxicity : LC50 Daphnia Gammarus lacustris = 0.6 mg/L 48h

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 11 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 32 mg/L 96h EPA  
a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 438 mg/L 96h IUCLID

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4.2 mg/L 96h EPA

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 7.55 mg/L 96h EPA  
a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 9.1 mg/L 96h EPA  
a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 9.6 mg/L 96h EPA  
a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 1.8 mg/L 48h IUCLID  
a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 4.6 mg/L 72h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 2.6 mg/L 72h EPA

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 1.7 mg/L 96h EPA

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate; Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester CAS: 41556-26-7 - EINECS: 255-437-1

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 0.97 mg/L 96h

**Persistence and degradability**

Not available

**Bioaccumulative potential**

Not available

**Mobility in soil**

Not available

**Other adverse effects**

Not available

**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

### UN number

DOT-UN Number: UN1993  
ADR-UN number: 1993  
IATA-Un number: 1993  
IMDG-Un number: 1993

### UN proper shipping name

DOT-Proper Shipping Name: Flammable liquids, n.o.s. (xylene - ethylbenzene)  
ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (having a flash-point below 23 °C and viscous according to 2.2.3.1.4) (vapour pressure at 50 °C more than 110 kPa, boiling point of more than 35 °C) (xylene - ethylbenzene)  
IATA-Technical name: FLAMMABLE LIQUID, N.O.S. (xylene - ethylbenzene)  
IMDG-Technical name: FLAMMABLE LIQUID, N.O.S. (xylene - ethylbenzene)

### Transport hazard class(es)

DOT-Hazard Class: 3  
ADR-Class: 3  
IATA-Class: 3  
IMDG-Class: 3

### Packing group

DOT-Packing group: III  
ADR-Packing Group: III  
IATA-Packing group: III  
IMDG-Packing group: III

### Environmental hazards

Marine pollutant: No  
Environmental Pollutant: Not Applicable  
DOT-RQ: Not Applicable

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

Not Applicable

### Special precautions

#### Department of Transportation (DOT):

DOT-Special Provision(s): B1, B52, IB3, T4, TP1, TP29  
DOT-Label(s): 3  
DOT-Symbol: N/A  
DOT-Cargo Aircraft: N/A  
DOT-Passenger Aircraft: N/A  
DOT-Bulk: N/A  
DOT-Non-Bulk: N/A

#### Road and Rail ( ADR-RID ) :

ADR-Label: 3  
ADR-Hazard identification number: 30  
ADR-Transport category (Tunnel restriction code): 3 (D/E)

#### Air ( IATA ) :

IATA-Passenger Aircraft: 355  
IATA-Cargo Aircraft: 366  
IATA-Label: 3  
IATA-Subsidiary hazards: -  
IATA-Erg: 3L  
IATA-Special Provisioning: A3

#### Sea ( IMDG ) :

IMDG-Stowage Code: Category A  
IMDG-Stowage Note: -  
IMDG-Subsidiary hazards: -  
IMDG-Special Provisioning: 223 274 955

## 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:

titanium dioxide; Dioxotitanium is listed in TSCA Section 8b  
calcium oxide; quicklime is listed in TSCA Section 8b  
xylenes; 1,2 dimethylbenzene is listed in TSCA Section 8b  
ethyl benzene; aethylbenzol is listed in TSCA Section 8b  
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate; Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester is listed in TSCA Section 8b

#### SARA - Superfund Amendments and Reauthorization Act

##### Section 302 - Extremely Hazardous Substances:

No substances listed

##### Section 304 - Hazardous substances:

xylenes; 1,2 dimethylbenzene  
ethyl benzene; aethylbenzol

##### Section 313 - Toxic chemical list:

xylenes; 1,2 dimethylbenzene  
ethyl benzene; aethylbenzol

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

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

xylenes; 1,2 dimethylbenzene	Reportable quantity:	100	pounds
ethyl benzene; aethylbenzol	Reportable quantity:	1000	pounds

#### CAA - Clean Air Act

##### CAA listed substances:

xylenes; 1,2 dimethylbenzene is listed in CAA Section 112(b) - HAP Section 112(b) - HON  
ethyl benzene; aethylbenzol is listed in CAA Section 112(b) - HAP Section 112(b) - HON

#### CWA - Clean Water Act

##### CWA listed substances:

xylenes; 1,2 dimethylbenzene is listed in CWA Section 311  
ethyl benzene; aethylbenzol is listed in CWA Section 307 Section 311

### USA - State specific regulations

#### California Proposition 65

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

titanium dioxide; Dioxotitanium Listed as carcinogen  
ethyl benzene; aethylbenzol Listed as carcinogen

#### Massachusetts Right to know

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

titanium dioxide; Dioxotitanium  
calcium oxide; quicklime  
xylenes; 1,2 dimethylbenzene  
ethyl benzene; aethylbenzol

#### Pennsylvania Right to know

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

titanium dioxide; Dioxotitanium  
calcium oxide; quicklime

xylenes; 1,2 dimethylbenzene  
ethyl benzene; aethylbenzol

### New Jersey Right to know

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

titanium dioxide; Dioxotitanium  
calcium oxide; quicklime  
xylenes; 1,2 dimethylbenzene  
ethyl benzene; aethylbenzol

### 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

Safety Data Sheet dated: 2/25/2023 - version 7

#### Additional classification information

NFPA Health: 1 = Slight  
NFPA Flammability: 2 = Combustible liquid  
NFPA Reactivity: 0 = Minimal  
NFPA Special Risk: Not available



Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

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This SDS cancels and replaces any preceding release.

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
A.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
A.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
A.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/1	Eye Dam. 1	Serious eye damage, Category 1
A.4.2/1	Skin Sens. 1	Skin Sensitization, Category 1
A.6/2	Carc. 2	Carcinogenicity, Category 2
A.8/3	STOT SE 3	Specific target organ toxicity following single exposure, Category 3

B.6/2	Flam. Liq. 2	Flammable Liquids — Category 2
B.6/3	Flam. Liq. 3	Flammable Liquids — Category 3
US-HAE/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
US-HAE/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1

**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:**

- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 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

---

**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**

Safety Data Sheet dated: 8/17/2021 - version 4

**Additional classification information**

NFPA Health: 1 = Slight

NFPA Flammability: 1 = Combustible if heated

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NFPA

<b>Code</b>	<b>Description</b>
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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.

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 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