

Safety Data Sheet MAPEDECK DESIGN/B

Safety Data Sheet dated: 10/10/2025 - version 2

Date of first edition: 02/15/2024



1. IDENTIFICATION

Product identifier used on the label

Mixture identification:

Trade name: MAPEDECK DESIGN/B

Trade code: 903EA9999

Recommended use of the chemical and restrictions on use

Recommended use: Crosslinking agent

Restrictions on use: Data not available.

Name, U.S. address, and U.S. 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

Acute toxicity (inhalation), Category 4

Harmful if inhaled.

Respiratory Sensitization, Category 1

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

Skin Sensitization, Category 1

May cause an allergic skin reaction.

Specific target organ toxicity following single exposure, Category 3

May cause respiratory irritation.

Label elements

Hazard pictograms and Signal Word



Danger

Hazard statements

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

Precautionary statements

P261 Avoid breathing mist/vapours/spray.

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.

P312 Call a doctor if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

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.

Hazards associated with foreseeable chemical reactions

None

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

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

Qty	Name	Ident. Numb.	Classification
≥90 - <100 %	1,6-diisocyanatohexane homopolymer; Hexamethylene diisocyanate homopolymer	CAS:28182-81-2 EC:500-060-2	Acute Tox. 4, H332; STOT SE 3, H335; Skin Sens. 1, H317
≥0.3 - <0.5 %	hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol	CAS:822-06-0 EC:212-485-8 EU CLP Index:615-011-00-1	Acute Tox. 4, H302; Eye Irrit. 2A, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Acute Tox. 1, H330; Resp. Sens. 1, H334; Skin Sens. 1, H317

The actual concentration of the components listed above is withheld as a trade secret.

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.

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.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

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.

Storage temperature: Not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol CAS: 822-06-0	ACGIH		Long Term: 0,005 ppm URT irr, resp sens
	MAK	GERMANY	Long Term: 0,035 mg/m3 - 0,005 ppm
	ACGIH		Long Term: 0,005 ppm respiratory sensitization;upper respiratory tract irritation
	MAK	AUSTRIA	Long Term: 0,035 mg/m3 - 0,005 ppm; Short Term: 0,035 mg/m3 - 0,005 ppm
	MAK	AUSTRIA	Short Term: Ceiling - 0,035 mg/m3 - 0,005 ppm
	EU		Long Term: 0,006 mg/m3; Short Term: 0,012 mg/m3 Skin; Dermal and respiratory sensitisation

Biological limit values

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol CAS: 822-06-0	Biological Indicator: 1,6-Hexamethylenediamine with hydrolysis; Sampling Period: End of turn Value: 15 MICROGGCREAT; Medium: Urine Remark: Not Specific
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Predicted No Effect Concentration (PNEC) values

1,6-diisocyanatohexane homopolymer;
Hexamethylene diisocyanate homopolymer
CAS: 28182-81-2

Exposure Route: Fresh Water; PNEC Limit: 0,127 mg/l

Exposure Route: Marine water; PNEC Limit: 0,0127 mg/l
Exposure Route: Soil; PNEC Limit: 53182 mg/kg
Exposure Route: Freshwater sediments; PNEC Limit: 266700 mg/kg
Exposure Route: Marine water sediments; PNEC Limit: 26670 mg/kg
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 38,3 mg/l
Exposure Route: Intermittent release; PNEC Limit: 1,27 mg/l
Exposure Route: Fresh Water; PNEC Limit: 0,077 mg/l

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol
CAS: 822-06-0

Exposure Route: Marine water; PNEC Limit: 0,008 mg/l
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 8,42 mg/l
Exposure Route: Freshwater sediments; PNEC Limit: 0,013 mg/kg
Exposure Route: Marine water; PNEC Limit: 0,001 mg/kg
Exposure Route: Soil; PNEC Limit: 0,003

Derived No Effect Level (DNEL) values

1,6-diisocyanatohexane homopolymer;
Hexamethylene diisocyanate homopolymer
CAS: 28182-81-2

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 1 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 0,5 mg/m³

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol
CAS: 822-06-0

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 0,035 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 0,07 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 0,035 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 0,07 mg/m³

Appropriate engineering controls: Not available

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use contact lenses.

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 $\geq 0,5$ mm; breakthrough time ≥ 480 min.

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

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance and colour:	liquid light yellow
Odour:	odourless
Odour threshold:	No data available
Melting point / freezing point:	No data available
Initial boiling point and boiling range:	100 °C (212 °F)
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Flash point:	100 °C (212 °F)
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Viscosity:	No data available
Kinematic viscosity:	No data available
Solubility in water:	No data available
Solubility in oil:	No data available
Partition coefficient (n-octanol/water):	No data available
Vapour pressure:	No data available
Evaporation rate:	No data available
Relative density:	1.10 g/cm ³
Vapour density:	No data available

Particle characteristics:

Particle size:	No data available
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Other information

Explosive properties:	No data available
Oxidizing properties:	No data available
Solid/gas flammability:	No data available
Substance Groups relevant properties:	No data available
Miscibility:	No data available
Fat Solubility:	No data available
Conductivity:	No data available

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.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological Information of the Preparation

a) acute toxicity	The product is classified: Acute toxicity (inhalation), Category 4(H332) ATEmix - Inhalation (Vapours) : 11.0542 mg/l
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	The product is classified: Respiratory Sensitization, Category 1(H334), 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	The product is classified: Specific target organ toxicity following single exposure, Category 3(H335)
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 on main components of the mixture:

1,6-diisocyanatohexane homopolymer; Hexamethylene diisocyanate homopolymer	a) acute toxicity	LD50 Oral Rat > 2500 mg/kg	ratto femmina
		LD50 Skin Rat > 2000 mg/kg	
		LD50 Skin Rabbit > 2000 mg/kg	
		LC50 Inhalation Mist Rat = 0,39 mg/l 4h	ratto femmina
		LC50 Inhalation Rat = 18500 mg/m3 1h	
hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol	a) acute toxicity	LD50 Oral Rat = 746 mg/kg	
		LC50 Inhalation Vapour Rat = 0,124 mg/l 4h	
		LD50 Skin Rat > 7000 mg/kg	
		LD50 Skin Rat > 7000 mg/kg	
		LC50 Inhalation Rat = 0,06 mg/l 4h	
		LD50 Oral Rat = 738 mg/kg	

Substance(s) listed on the IARC Monographs:

None

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

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 Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
1,6-diisocyanatohexane homopolymer; Hexamethylene diisocyanate homopolymer	CAS: 28182-81-2 - EINECS: 500-060-2	a) Aquatic acute toxicity : LC50 Fish > 100 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 100 mg/L 48 a) Aquatic acute toxicity : EC50 Algae > 1000 mg/L 72 c) Bacteria toxicity : EC50 Bacteria = 3828 mg/L 3
hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol	CAS: 822-06-0 - EINECS: 212-485-8 - INDEX: 615-011-00-1	a) Aquatic acute toxicity : EC50 Algae = 77,4 mg/L 72 a) Aquatic acute toxicity : LC50 Fish = 8,8 mg/L 96 a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 26,1 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 26,1 mg/L 96h IUCLID - static

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

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.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN number

DOT-UN Number: Not Applicable
ADR-UN number: Not Applicable
IATA-Un number: Not Applicable
IMDG-Un number: Not Applicable

UN proper shipping name

DOT-Proper Shipping Name: Not Applicable
ADR-Shipping Name: Not Applicable
IATA-Technical name: Not Applicable
IMDG-Technical name: Not Applicable

Transport hazard class(es)

DOT-Hazard Class: Not Applicable
ADR-Class: Not Applicable
IATA-Class: Not Applicable
IMDG-Class: Not Applicable

Packing group

DOT Packing Group: Not Applicable
ADR-Packing Group: Not Applicable
IATA-Packing group: Not Applicable
IMDG-Packing group: Not Applicable

Environmental hazards

Marine pollutant: No
Environmental Pollutant: Not Applicable
DOT-RQ: Yes DOT-RQ - Quantity: 100 lbs

Transport in bulk according to IMO instruments

N.A.
Not Applicable

Special precautions

Department of Transportation (DOT):

Not Applicable

Road and Rail (ADR-RID) :

Not Applicable

Air (IATA) :

Not Applicable

Sea (IMDG) :

Not Applicable

15. REGULATORY INFORMATION

This Safety Data Sheet has been prepared according to the Hazard Communication Standard 2024 (HCS 2024)

USA - Federal regulations

TSCA - Toxic Substances Control Act

All the components are listed on the TSCA inventory

TSCA listed substances:

1,6-diisocyanatohexane is listed in TSCA Section 8b
homopolymer; Hexamethylene
diisocyanate homopolymer

hexamethylene diisocyanate; is listed in TSCA Section 8b Section 5
Isocyanic acid, diester with 1,6-
hexanediol

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol

Section 313 - Toxic chemical list:

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol Reportable quantity: 100 pounds

CAA - Clean Air Act

CAA listed substances:

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol is listed in CAA Section 112(b) - HAP

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:

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

No substances listed

New Jersey Right to know

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

hexamethylene diisocyanate; Isocyanic acid, diester with 1,6-hexanediol

Canada - Federal regulations

DSL - Domestic Substances List

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

This product complies with NDSL inventory

NPRI - National Pollutant Release Inventory

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

No substances listed

16. OTHER INFORMATION

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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.

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.

Code	Description	
H302	Harmful if swallowed.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H330	Fatal if inhaled.	
H332	Harmful if inhaled.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H335	May cause respiratory irritation.	
Code	Hazard class and hazard category	Description
A.1/1/Inhal	Acute Tox. 1	Acute toxicity (inhalation), Category 1

A.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
A.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
A.4.1/1	Resp. Sens. 1	Respiratory Sensitization, Category 1
A.4.2/1	Skin Sens. 1	Skin Sensitization, Category 1
A.8/3	STOT SE 3	Specific target organ toxicity following single exposure, Category 3

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.
 EU CLP Index: Index number as reported in Annex VI to EU Reg. 1272/2008
 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:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 16. OTHER INFORMATION