1. Identification

GHS Product Identifier

Mixture identification:

Trade name: PURTOP 500 N /B

Trade code: 904UH9999

Recommended use of the chemical and restrictions on use

Recommended use: Poliureic membrane

Uses advised against: Data not available.

Supplier's details

Company: MAPEI CONSTRUCTION CHEMICALS L.L.C
P.O. BOX 73869 DUBAI - United Arab Emirates

Office: 00971 4 8156666

Factory : 00971 4 8858428

Responsable: info@mapei.ae

Emergency phone number

Office: 00971 4 8156666

2. Hazard identification

Classification of the substance or mixture

Acute toxicity (inhalation), Category 4	Harmful if inhaled.
Skin irritation, Category 2	Causes skin irritation.
Eye irritation, Category 2A	Causes serious eye irritation.
Respiratory Sensitisation, Category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sensitisation, Category 1B	May cause an allergic skin reaction.
Carcinogenicity, Category 2	Suspected of causing cancer.
Specific target organ toxicity — single exposure, Category 3	May cause respiratory irritation.
Specific target organ toxicity — repeated exposure, Category 2	May cause damage to organs through prolonged or repeated exposure.

Adverse physicochemical, human health and environmental effects:

No other hazards

GHS label elements, including precautionary statements

Hazard pictograms and Signal Word



Danger

Hazard statements

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

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 dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... Thoroughly after handling.

P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/…
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water/…
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER/doctor/… if you feel unwell.
P314	Get medical advice/attention. if you feel unwell.
P321	Specific treatment (see ... On this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to ...

Other hazards which do not result in a classification

No other hazards

3. Composition/information on ingredients

Substances

Not Relevant

Mixtures

Mixture identification: PURTOP 500 N /B

Hazardous components within the meaning of GHS and related classification:

Qty	Name	Ident. Numb.	Classification
≥50 - <75 %	Methylenediphenyl diisocyanate mixed isomers (MDI) and oligomers reaction product with Polyether polyol		Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373; Skin Sens. 1, H317; Resp. Sens. 1, H334
≥25 - <50 %	Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate	CAS:26447-40-5 EC:247-714-0 Index:615-005-00-9	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Resp. Sens. 1, H334; Skin Sens. 1B, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373
≥2.5 - <5 %	4,4'-Methylenediphenyl diisocyanate, oligomers	CAS:25686-28-6 EC:500-040-3	Acute Tox. 4, H332; Eye Irrit. 2A, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT RE 2, H373; Carc. 2, H351

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:

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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).

Treatment:

(see paragraph 4.1)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO_2).

Unsuitable extinguishing media:

None in particular.

Special 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 actions 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.

Environmental precautions

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

Limit leakages with earth or sand.

Methods and material for containment and cleaning up

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

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.

Exercise the greatest care when handling or opening the container.

Do not use on extensive surface areas in premises where there are occupants.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

8. Exposure controls/personal protection

Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate CAS: 26447-40-5	IDN	INDONESIA	Long Term: 0.005 ppm
	EGY	EGYPT	Long Term: 0.051 mg/m3 - 0.005 ppm
	ARE	UNITED ARAB EMIRATES	Long Term: 0.051 mg/m3 - 0.005 ppm

Predicted No Effect Concentration (PNEC) values

4,4'-Methylenediphenyl diisocyanate, oligomers CAS: 25686-28-6	Exposure Route: Fresh Water; PNEC Limit: 1 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.1 mg/l
	Exposure Route: Soil; PNEC Limit: 1 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l

Derived No Effect Level (DNEL) values

4,4'-Methylenediphenyl diisocyanate, oligomers CAS: 25686-28-6	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Industry: 50 mg/kg; Consumer: 25 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 0.1 mg/m3; Consumer: 0.05 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Industry: 0.1 mg/m3; Consumer: 0.05 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 0.05 mg/m3; Consumer: 0.025 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 0.05 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects Worker Industry: 28.7 mg/cm2; Consumer: 17.2 mg/cm2
	Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects Consumer: 20 mg/kg

Appropriate engineering controls: N.A.

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

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; EN ISO 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

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

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Physical state Liquid
Color: Yellow
Appearance: liquid
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: N.A.
Evaporation rate: N.A.
Solid/gas flammability: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour pressure: N.A.
Vapour density: N.A.
Relative density: 1.14 g/cm3
Solubility in water: reacts with water
Solubility in oil: soluble
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: 700.00 mPA-s

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

Toxicological information on main components of the mixture:

Reaction mass of 4,4'-	a) acute toxicity	LD50 Skin Rabbit > 10000 mg/kg

methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate		
		LC50 Inhalation Rat = 490 mg/m3 4h
		LD50 Oral Rat > 10000 mg/kg
4,4'-Methylenediphenyl diisocyanate, oligomers	a) acute toxicity	LC50 Inhalation Mist Rat 0.368 mg/l 4h
		LD50 Skin Rabbit > 9400 mg/kg
		LD50 Oral Rat > 5000 mg/kg

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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate	CAS: 26447-40-5 - EINECS: 247-714-0 - INDEX: 615-005-00-9	d) Terrestrial toxicity : LC50 Worm Eisenia foetida > 1000 mg/kg 14d IUCLID
		d) Terrestrial toxicity : NOEC Worm Eisenia foetida >= 1000 mg/kg 14d IUCLID
4,4'-Methylenediphenyl diisocyanate, oligomers	CAS: 25686-28-6 - EINECS: 500-040-3	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72
		a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24
		b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d
		c) Bacteria toxicity : EC50 Bacteria > 100 mg/L 3
		d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d
		e) Plant toxicity : NOEC > 1000 mg/kg - 14 d

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

No Data found about other evironmental hazard properties.

13. Disposal considerations

Disposal 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.

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

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

Environmental hazards

Marine pollutant: No

Environmental Pollutant: N.A.

Special precautions for user

N.A.

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

N.A.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

This Safety Data Sheet has been prepared according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fifth revised edition.

SCAQMD Rule 1113 : NA

SCAQMD Rule 1168: NA

16. Other information

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

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1

3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2

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

Main bibliographic sources:

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

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

Insert here further consulted bibliography

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.