

Safety Data Sheet

MAPEFLOOR CPU TC /B

Safety Data Sheet dated: 20/04/2021 - version 1

Date of first edition: 20/04/2021



1. Identification

GHS Product identifier

Mixture identification:

Trade name: MAPEFLOOR CPU TC /B

Trade code: 9024112

Recommended use of the chemical and restrictions on use

Recommended use: Hardener for polyurethane resins

Uses advised against: Data not available

Supplier's details

Company: MAPEI AUSTRALIA Pty Ltd

180 Viking Drive Wacol QLD 4076 Australia

Responsible: sales@mapei.com.au

Emergency phone number

Australian Poisons Information Centre 24 Hour Service 13 11 26

Police or Fire Brigade 000

2. Hazard identification



Classification of the Hazardous chemical

Acute Tox. 4	Harmful if inhaled.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
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 SE 3	May cause respiratory irritation.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Adverse physicochemical, human health and environmental effects:

No other hazards

GHS label elements, including precautionary statements

Pictograms and Signal Words



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 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.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with applicable regulations.

Other hazards which do not result in a classification

Other Hazards: No other hazards

3. Composition/information on ingredients

Substances

no data available

Mixtures

Mixture identification: MAPEFLOOR CPU TC /B

Hazardous components within the meaning of the "Australian Work Health and Safety (WHS)" regulation and related classification:

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
≥75 - <100 %	diphenylmethanediisocyanate isomers and homologues	CAS:9016-87-9 EC:618-498-9 Index:615-005-00-9	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	
≥10 - <20 %	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	CAS:101-68-8 EC:202-966-0 Index:615-005-00-9	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	01-2119457014-47
≥5 - <10 %	o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	CAS:5873-54-1 EC:227-534-9 Index:615-005-00-9	Carc. 2, H351; STOT RE 2, H373; Eye Irrit. 2A, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Acute Tox. 4, H332	01-2119480143-45-0000
≥0.49 - <1 %	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	CAS:2536-05-2 EC:219-799-4 Index:615-005-00-9	Carc. 2, H351; STOT RE 2, H373; Eye Irrit. 2A, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Acute Tox. 4, H332	01-2119927323-43-XXXX

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 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:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

Symptoms caused by exposure

Eye irritation

Eye damages

Skin Irritation

Erythema

Medical attention and special treatment

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

Suitable extinguishing media

None in particular.

Water.

Carbon dioxide (CO₂).

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: no data available

Explosive properties: no data available

Oxidizing properties: no data 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.

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 – exposure standards, biological monitoring

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
diphenylmethanediisocyanate isomers and homologues	ACGIH	None			0.05				
	AUS	AUSTRALIA		0.02		0.07			
	National	GERMANY		0.05					
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	National	SLOVENIA		0.05		0.05			
	National	NORWAY		0.050	0.005		0.010		Provoking allergic reactions or other hypersensitivity in the eyes or respiratory organs, or in contact with skin.
	National	SWEDEN	C	0.030	0.002	0.050	0.005		SWEDEN, Ceiling limit value
	ACGIH	None			0.005				Resp sens
	National	POLAND		0.030		0.090			
	National	AUSTRIA		0.050	0.005	0.100	0.010		
	ACGIH	None			0.005				respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
	AUS	AUSTRALIA		0.020		0.070			
	OSHA	None	C			0.200	0.020		
	National	SWEDEN		0.030	0.002				
	National	FRANCE		0.100	0.010	0.200	0.020		
	National	SPAIN		0.052	0.005				
	National	DENMARK		0.050	0.005				
	National	GERMANY		0.050					
	National	PORTUGAL			0.005				
	National	BELGIUM		0.052	0.005				
	National	CZECH REPUBLIC		0.050					
	National	HUNGARY			0.05		0.050		
	National	ESTONIA			0.050	0.005	0.100	0.010	
	National	CZECH REPUBLIC	C				0.100		
National	SLOVAKIA			0.002					
National	SLOVAKIA			0.030					
National	SLOVENIA			0.050		0.050			
National	ROMANIA					0.150			
National	LITHUANIA			0.050	0.005				
National	LITHUANIA	C				0.100	0.010		
ACGIH					0.005				respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
OSHA		C				0.2	0.02		
National	NORWAY			0.05	0.005		0.01		
National	SLOVENIA			0.05	0.005	0.05	0.005		

o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	National GERMANY	0.05	
	National SLOVENIA	0.05	0.05
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	ACGIH None	0.051	
	National GERMANY	0.05	
	National SLOVENIA	0.05	0.05

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency Remark
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	101-68-8	1 mg/l	Fresh Water	
		0.1 mg/l	Marine water	
		1 mg/kg	Soil	
		1 mg/l	Microorganisms in sewage treatments	
		10.000000 mg/l	Intermittent release	
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	5873-54-1	1 mg/l	Fresh Water	
		0.1 mg/l	Marine water	
		1 mg/kg	Soil	
		1 mg/l	Microorganisms in sewage treatments	
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	2536-05-2	1 mg/l	Fresh Water	
		0.1 mg/kg	Marine water	
		1 mg/l	Soil	
		1 mg/l	Microorganisms in sewage treatments	

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industrial	Worker Professional	Consumer	Exposure Route	Exposure Frequency Remark
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	101-68-8	50 mg/kg			Human Dermal	Short Term, systemic effects
		0.1 mg/m3			Human Inhalation	Short Term, systemic effects
		0.1 mg/m3			Human Inhalation	Short Term, local effects
		0.05 mg/m3			Human Inhalation	Long Term, systemic effects
		0.05 mg/m3			Human Inhalation	Long Term, local effects

			25 mg/kg	Human Dermal	Short Term, systemic effects
			0.05 mg/m ³	Human Inhalation	Short Term, systemic effects
			20 mg/kg	Human Oral	Short Term, systemic effects
			0.05 mg/m ³	Human Inhalation	Short Term, local effects
			0.025 mg/m ³	Human Inhalation	Long Term, systemic effects
			0.025 mg/m ³	Human Inhalation	Long Term, local effects
		28.7 mg/cm ²	17.2 mg/cm ²	Human Dermal	Short Term, local effects
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	5873-54-1	50 mg/kg	25 mg/kg	Human Dermal	Short Term, systemic effects
		0.1 mg/m ³	0.05 mg/m ³	Human Inhalation	Short Term, systemic effects
		28.7 mg/cm ²	17.2 mg/cm ²	Human Dermal	Short Term, local effects
		0.1 mg/m ³	0.05 mg/m ³	Human Inhalation	Short Term, local effects
		0.05 mg/m ³	0.025 mg/m ³	Human Inhalation	Long Term, systemic effects
		0.05 mg/m ³	0.025 mg/m ³	Human Inhalation	Long Term, local effects
			20 mg/kg	Human Oral	Short Term, systemic effects
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	2536-05-2	50 mg/kg	25 mg/kg	Human Dermal	Short Term, systemic effects
		0.1 mg/m ³	0.05 mg/m ³	Human Inhalation	Short Term, systemic effects
		28.7 mg/cm ²	17.2 mg/cm ²	Human Dermal	Short Term, local effects
		0.1 mg/m ³	0.05 mg/m ³	Human Inhalation	Short Term, local effects
		0.05 mg/m ³	0.025 mg/m ³	Human Inhalation	Long Term, systemic effects
		0.05 mg/m ³	0.025 mg/m ³	Human Inhalation	Long Term, local effects
			20 mg/kg	Human Oral	Long Term, systemic effects

Appropriate engineering controls

no data available

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

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; AS/NZS 2161.10:

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

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 protective 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 AS/NZS 1715-1716 for information on selection and use of appropriate respiratory protection equipment.

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

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Physical state: Liquid

Color: light brown

Appearance: liquid

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: no data available

Evaporation rate: no data available

Flammability (Solid, Gas): no data available

Upper/lower flammability or explosive limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: no data available

Solubility in water: partly soluble

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

Specific heat value: no data available

Saturated vapour concentration: no data available

Release of invisible flammable vapours and gases: no data available

Particle size: no data available

Particle size distribution: no data available

Shape and aspect ratio: no data available

Crystallinity: no data available

Dustiness: no data available

Specific surface area: no data available

Degree of aggregation or agglomeration, and dispersibility: no data available

Biodurability or biopersistence: no data available

Surface coating or chemistry: no data available

VOC % (Volatile Organic Compound) : 1,6 (Rule 1113) g/l

10. Stability and reactivity

Reactivity

Stable under normal conditions

Chemical stability

no data available

Possibility of hazardous reactions

None.

Conditions to avoid

Stable under normal conditions.

Incompatible materials

None in particular.

Hazardous decomposition products

SECTION 11: Toxicological information

Information on toxicological effects

Toxicological information of the mixture:

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

Toxicological information on main components of the mixture:

diphenylmethanediisocyanate isomers and homologues	a) acute toxicity	LD50 Oral Rat > 10000 mg/kg	
		LD50 Skin Rabbit > 9400 mg/kg	
		LC50 Inhalation Dust Rat = 0.31 mg/l 4h	
		LD50 Skin Rabbit > 9.4 g/kg	
		LC50 Inhalation Rat = 490 mg/m ³ 4h	
		LD50 Oral Rat = 49 g/kg	
	g) reproductive toxicity	NOAEL Inhalation Rat = 12 mg/m ³	
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LD50 Skin Rabbit > 9400 mg/kg	
		LC50 Inhalation Dust Rat = 0.368 mg/l 4h	
		LC50 Inhalation Rat = 369 mg/m ³ 4h	
		LD50 Oral Rat = 31600 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Skin Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Skin Mouse Positive	
		Respiratory Sensitization Inhalation Positive	
	f) carcinogenicity	Carcinogenicity Inhalation Rat = 6 mg/m ³	2 y
	g) reproductive toxicity	NOAEL Inhalation Rat = 12 mg/m ³	20 d
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	a) acute toxicity	LD50 Skin Rabbit > 9400 mg/kg	
		LD50 Oral Rat > 2000 mg/kg	
	e) germ cell mutagenicity	NOAEL Inhalation Rat = 12 mg/m ³	
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LC50 Inhalation Dust Rat = 0.527 mg/l 4h	
		LD50 Skin Rabbit > 9400 mg/kg	
	e) germ cell mutagenicity	NOAEL Inhalation Rat = 12 mg/m ³	

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

12. Ecological information

Ecotoxicity

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

Eco-Toxicological Information:

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
diphenylmethanediisocyanate isomers and homologues	CAS: 9016-87-9 - EINECS: 618-498-9 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	CAS: 101-68-8 - EINECS: 202-966-0 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	CAS: 5873-54-1 - EINECS: 227-534-9 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	CAS: 2536-05-2 - EINECS: 219-799-4 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 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

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

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

no data available

UN proper shipping name

no data available

Transport hazard class(es)

no data available

Packing group, if applicable

no data available

Environmental hazards

no data available

Special precautions for user

no data available

Additional Information

no data available

HazChem Code/Emergency Action code

no data available

15. Regulatory information

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

This Safety Data Sheet has been prepared according to the Australian Work Health and Safety (WHS) act and the Code of Practice on preparation of safety data sheets for Hazardous Chemicals.

AICS: all components are listed

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.
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.
- H373 May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

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

Main bibliographic sources:

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

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

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

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

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

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

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

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

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

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

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

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

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KSt: Explosion coefficient.

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

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

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction

PNEC: Predicted No Effect Concentration.

PSG: Passengers

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

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

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

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.