

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name: KERALASTIC T comp. B Trade code: 901041

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Hardener for epoxy-polyurethane based adhesives or sealants Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: MAPEI U.K. Ltd - Mapei House Steel Park Road

Halesowen - West Midlands B62 8HD

www.mapei.co.uk (office hour 8:30-17:30)

Responsable: sicurezza@mapei.it

1.4. Emergency telephone number

call NHS 111 or a doctor/OHES Environmental Ltd +44(0)1684 299 886 phone: +44(0)121 508 6970 - fax: +44(0)121 5086 960

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Skin Corr. 1B	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1B	May cause an allergic skin reaction.
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

2.2. Label elements

Regulation (EC) n. 1272/2008 (CLP)

Pictograms and Signal Words



Hazard statements:

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H373 May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Precautionary statements:

- P261 Avoid breathing mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P33 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

1

P303+P361+P35 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

3

8

P305+P351+P33 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER.

P314 Get medical advice/attention if you feel unwell.

Contains:

4,4'-Methylenebis(cyclohexylamine)

Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)

2,4,6-tris(dimethylaminomethyl)phenol

bis[(dimethylamino)methyl]phenol

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: KERALASTIC T comp. B

Hazardous components within the meaning of the CLP regulation and related classification:

Quantity	Name	Ident. Numb.	Classification	Registration Number
≥10 - <20 %	4,4'- Methylenebis(cyclohexylamine)	CAS:1761-71-3 EC:217-168-8	Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317; STOT RE 2, H373	01-2119541673-38-xxxx
≥10 - <20 %	benzyl alcohol	CAS:100-51-6 EC:202-859-9 Index:603-057- 00-5	Acute Tox. 4, H332; Acute Tox. 4, H302; Eye Irrit. 2, H319	01-2119492630-38-XXXX
≥10 - <20 %	Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	EC:292-588-2	Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Chronic 3, H412	01-2119487919-13-XXXX
≥5 - <10 %	2,4,6- tris(dimethylaminomethyl)phenol	CAS:90-72-2 EC:202-013-9	Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1B, H317	01-2119560597-27-XXXX
≥1 - <2.5 %	bis[(dimethylamino)methyl]phenol	CAS:71074-89-0 EC:275-162-0	Skin Corr. 1C, H314; Skin Sens. 1B, H317	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

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.

4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

4.3. 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)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. 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.

6.2. 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.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

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.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

List of components with OEL value

Component	OEL Country Type	Ceiling Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour Note
benzyl alcohol	National FINLAND	45	10	5,		
D	Dud affective					D

National	POLAND		240			
DFG	GERMANY	С			44	10
National	GERMANY		22	5		
NDS	POLAND		240			
National	CZECHIA		40			
National	LATVIA		5			
National	CZECHIA	С			80	
National	BULGARIA		5,0			
National	LITHUANIA		5			
National	SLOVENIA		22	5	44	10

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark	
4,4'- Methylenebis (cyclohexylamine)	1761-71-3	0,08 mg/l	Intermittent release			
benzyl alcohol	100-51-6	1 mg/l	Fresh Water			
		0,1 mg/l	Marine water			
		5,27 mg/kg	Freshwater sediments			
		0,527 mg/kg	Marine water sediments			
		39 mg/l	Microorganisms in sewage treatments			
		0,45 mg/kg	Soil			
		2,3 mg/l	Intermittent release			
Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	90640-67-8	3 0,19 mg/l	Fresh Water			
		0,038 mg/l	Marine water			
		95,5 mg/kg	Freshwater sediments			
		19,2 mg/kg	Marine water sediments			
		19,1 mg/kg	Soil			
2,4,6- tris (dimethylaminomethyl) phenol	90-72-2	0,084 mg/l	Fresh Water			
		0,0084 mg/l	Marine water			
		0,2 mg/l	Microorganisms in sewage treatments			
Derived No Effect Level. (DNEL)						
Component CAS			rker Consu Exp fess mer Rou		e Frequency Remark	

Industr Profess mer
yRoute4,4'-1761-71-30,5HumanLong Term, systemicMethylenebismg/m3Inhalationeffects(cyclohexylamine)Inhalationeffects

benzyl alcohol	100-51-6			20 mg/kg	Human Ora	l Short Term, systemic effects
				4 mg/kg	Human Ora	l Long Term, systemic effects
		110 mg/m3		27 mg/m3	Human Inhalation	Short Term, systemic effects
		22 mg/m3		5,4 mg/m3	Human Inhalation	Long Term, systemic effects
		40 mg/kg		20 mg/kg	Human Dermal	Short Term, systemic effects
		8 mg/kg		4 mg/kg	Human Dermal	Long Term, systemic effects
Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	90640-67-8	3	0,57 mg/kg	0,25 mg/kg	Human Dermal	Long Term, systemic effects
			0,001 mg/l	0,00029 mg/l	Human Inhalation	Long Term, systemic effects
				8 mg/kg	Human Dermal	Short Term, systemic effects
				0,41 mg/kg	Human Ora	l Long Term, systemic effects
		0, 028000		0, 430000 mg/cm2		Short Term, local effects
2,4,6- tris (dimethylaminometh yl)phenol	90-72-2 1	4,9 mg/m3			Human Inhalation	Long Term, local effects
		0,31 mg/m3			Human Inhalation	Long Term, systemic effects

8.2. Exposure controls

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; EN 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.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

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

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Use adequate protective respiratory equipment.

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid Appearance and colour: Liquid light brown

Odour: ammonia Odour threshold: N.A. pH: 11.00 Melting point / freezing point: N.A. Initial boiling point and boiling range: 127 °C (261 °F) Flash point: >93,1 °C (199,6 °F) Evaporation rate: N.A. Upper/lower flammability or explosive limits: N.A. Vapour density: 3.6 Vapour pressure: 0.20 Relative density: 0.92 g/cm3 Solubility in water: partly soluble Partition coefficient (n-octanol/water): N.A. - This product is a mixture Auto-ignition temperature: 400.00 °C - No explosive or spontaneous ignition in contact with air at room temperature Decomposition temperature: N.A. Viscosity: 30.00 cPs Explosive properties: 1.0 - 7.0 - No components with explosive properties Oxidizing properties: N.A. - No component with oxidizing properties Solid/gas flammability: N.A. 9.2. Other information No additional information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

- None in particular.
- 10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. 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:

4,4'- Methylenebis (cyclohexylamine)	a) acute toxicity	LD50 Oral Rat = 625 mg/kg
		LD50 Skin Rabbit = 2110 mg/kg
		LC50 Inhalation Mouse = $0,4 \text{ mg/l } 4h$
		LD50 Oral Rat = 1000 mg/kg
benzyl alcohol	a) acute toxicity	LD50 Skin Rabbit = 2000 mg/kg
		LD50 Oral Rat = 1620 mg/kg
		LC50 Inhalation Rat = 11,00000 mg/l 4h
		LD50 Skin Rabbit = 2 g/kg
		LC50 Inhalation Rat = 8,8 mg/l 4h
		LD50 Oral Rat = 1230 mg/kg
	g) reproductive toxicity	NOAEL Rat = 1072 mg/m3
Amines,	a) acute toxicity	LD50 Oral Rat = 1760 mg/kg
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LD50 Skin Rabbit = 1465 mg/kg

b) skin corrosion/irritation Skin Irritant Positive

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a) acute toxicity LD50 Oral Rat = 2169 mg/kg
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2,4,6tris (dimethylaminomethyl) phenol

> LD50 Skin Rat = 1280 mg/kg LD50 Oral Rat = 1200 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 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

k) Toxicological kinetics, metabolism and distribution information

- i) STOT-repeated exposure
- j) aspiration hazard

SECTION 12: Ecological information

12.1. Toxicity

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
4,4'- Methylenebis(cyclohexylamine)	CAS: 1761-71-3 - EINECS: 217- 168-8	a) Aquatic acute toxicity : EC50 Daphnia = 6,84 mg/L 48
		a) Aquatic acute toxicity: LC50 Fish > 100 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae = mg/L 72
		b) Aquatic chronic toxicity: NOEC Daphnia = 4 mg/L 504
benzyl alcohol	CAS: 100-51-6 - EINECS: 202- 859-9 - INDEX: 603-057-00-5	a) Aquatic acute toxicity: EC50 Daphnia = 230 mg/L 48
		a) Aquatic acute toxicity : LC50 Fish = 770 mg/L 1
		a) Aquatic acute toxicity : EC50 Algae = 770 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish = 460 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 66 mg/L
		b) Aquatic chronic toxicity : NOEC Daphnia = 51 mg/L - 21 d
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Daphnia water flea = 23 mg/L 48h
Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	CAS: 90640-67- 8 - EINECS: 292-588-2 -	a) Aquatic acute toxicity : LC50 Fish = 330 mg/L 96

INDEX: 612-059-00-5 a) Aquatic acute toxicity : EC50 Daphnia = 31,1 mg/L 48 a) Aquatic acute toxicity : EC50 Algae = 20 mg/L 72 CAS: 90-72-2 a) Aquatic acute toxicity : LC50 Fish = 222 mg/L 24 2,4,6tris(dimethylaminomethyl)phenol EINECS: 202-013-9 a) Aquatic acute toxicity : LC50 Fish = 249 mg/L 24 a) Aquatic acute toxicity : LC50 Fish = 175 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia = 718 mg/L 96 a) Aquatic acute toxicity : EC50 Algae = 84 mg/L 72 b) Aquatic chronic toxicity : NOEC Algae = 6,25 mg/L 12.2. Persistence and degradability N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Product:

Do not dispose of waste into sewers.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to an authorized waste disposal service.

Contaminated packaging:

Empty remaining content.

Dispose of as unused product.

Do not re-use empty containers.

SECTION 14: Transport information

14.1. UN number

2735

14.2. UN proper shipping name

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine, bis[(dimethylamino)methyl]phenol mixture)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine, bis[(dimethylamino)methyl]phenol mixture)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(isophoronediamine,bis[(dimethylamino)methyl]phenol mixture)

14.3. Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: No Environmental Pollutant: No 14.6. Special precautions for user Road and Rail (ADR-RID): ADR-Label: 8 ADR-Hazard identification number: NA ADR-Special Provisions: 274 ADR-Transport category (Tunnel restriction code): 3 (E) Air (IATA): IATA-Passenger Aircraft: 852 IATA-Cargo Aircraft: 856 IATA-Label: 8 IATA-Subsidiary hazards: -IATA-Erg: 8L IATA-Special Provisions: A3 A803 Sea (IMDG): IMDG-Stowage Code: Category A IMDG-Stowage Note: SG35 IMDG-Subsidiary hazards: -IMDG-Special Provisions: 223 274 IMDG-Page: N/A IMDG-Label: N/A IMDG-EMS: F-A, S-B IMDG-MFAG: N/A 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC (2004/42/EC) : N.A. g/l Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EU) 2015/830 Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Regulation (EU) n. 2017/776 (ATP 10 CLP) Provisions related to directive EU 2012/18 (Seveso III):

N.A.

German Water Hazard Class

N.A.

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: None

SVHC Substances:

No Data Available

MAL-kode: 00-5

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description				
H302	Harmful if swallowed.	Harmful if swallowed.			
H312	Harmful in contact with skin.				
H314	Causes severe skin burns and eye damage	е.			
H317	May cause an allergic skin reaction.				
H318	Causes serious eye damage.				
H319	Causes serious eye irritation.				
H332	Harmful if inhaled.				
H373	May cause damage to organs through pro	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.				
H412	Harmful to aquatic life with long lasting ef	fects.			
Code	Hazard class and hazard category	Description			
3.1/4/Dermal					
5.1/4/Dermai	Acute Tox. 4	Acute toxicity (dermal), Category 4			
3.1/4/Dermai 3.1/4/Inhal	Acute Tox. 4 Acute Tox. 4	Acute toxicity (dermal), Category 4 Acute toxicity (inhalation), Category 4			
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4			
3.1/4/Inhal 3.1/4/Oral	Acute Tox. 4 Acute Tox. 4	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4			
3.1/4/Inhal 3.1/4/Oral 3.2/1B	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B			
3.1/4/Inhal 3.1/4/Oral 3.2/1B 3.2/1C	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Corr. 1C	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B Skin corrosion, Category 1C			
3.1/4/Inhal 3.1/4/Oral 3.2/1B 3.2/1C 3.3/1	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Corr. 1C Eye Dam. 1	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B Skin corrosion, Category 1C Serious eye damage, Category 1			
3.1/4/Inhal 3.1/4/Oral 3.2/1B 3.2/1C 3.3/1 3.3/2	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Corr. 1C Eye Dam. 1 Eye Irrit. 2	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B Skin corrosion, Category 1C Serious eye damage, Category 1 Eye irritation, Category 2			
3.1/4/Inhal 3.1/4/Oral 3.2/1B 3.2/1C 3.3/1 3.3/2 3.4.2/1	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Corr. 1C Eye Dam. 1 Eye Irrit. 2 Skin Sens. 1	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B Skin corrosion, Category 1C Serious eye damage, Category 1 Eye irritation, Category 2 Skin Sensitisation, Category 1			
3.1/4/Inhal 3.1/4/Oral 3.2/1B 3.2/1C 3.3/1 3.3/2 3.4.2/1 3.4.2/1B	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Corr. 1C Eye Dam. 1 Eye Irrit. 2 Skin Sens. 1 Skin Sens. 1B	Acute toxicity (inhalation), Category 4 Acute toxicity (oral), Category 4 Skin corrosion, Category 1B Skin corrosion, Category 1C Serious eye damage, Category 1 Eye irritation, Category 2 Skin Sensitisation, Category 1 Skin Sensitisation, Category 1B			

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
3.2/1B	Calculation method
3.3/1	Calculation method
3.4.2/1B	Calculation method
3.9/2	Calculation method

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.