

Safety Data Sheet
EPOJET LV/B

Safety Data Sheet dated: 04/02/2020 - version 2



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

1.1. Product identifier

Mixture identification:

Trade name: EPOJET LV/B

Trade code: 901577

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

Recommended use: Hardener for epoxy products

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel: +39-02-376731

Fax: +39-02-37673.214

Responsable: sicurezza@mapei.it

1.4. Emergency telephone number

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

MAPEI S.p.A. - Tel. +(39)02376731 - (office hours)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

Acute Tox. 4	Harmful if swallowed.
Skin Corr. 1A	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1A	May cause an allergic skin reaction.
Aquatic Chronic 2	Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

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

Pictograms and Signal Words



Danger

Hazard statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTRE/doctor/... if you feel unwell.

P301+P330+P33 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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P302+P352 IF ON SKIN: Wash with plenty of water/...

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

3

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment (see ... on this label).

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

P362+P364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents/container to

Special Provisions:

EUH208 Contains fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta. May produce an allergic reaction.

EUH208 Contains Phenol, styrenated. May produce an allergic reaction.

Contains:

trimethylhexamethylenediamine

Amines, polyethylenepoly-,
triethylenetetramine fraction (TETA)

m-xylylenediamine

Fatty acids, C18-unsatd., dimers,
oligomeric reaction products with tall-oil
fatty acids and tetraethylenepentamine

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: EPOJET LV/B

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

Quantity	Name	Ident. Numb.	Classification	Registration Number
≥25 - <50 %	m-xylylenediamine	CAS:1477-55-0 EC:216-032-5	Acute Tox. 4, H332; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1,1A,1B, H317; Aquatic Chronic 3, H412, EUH071	01-2119480150-50-xxxx
≥25 - <50 %	Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	CAS:90640-67-8 EC:292-588-2 Index:612-059-00-5	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
≥10 - <20 %	trimethylhexamethylenediamine	CAS:25513-64-8 EC:247-063-2	Acute Tox. 4, H302; Skin Corr. 1A, H314; Skin Sens. 1A, H317	01-2119560598-25-XXXX
≥10 - <20 %	bis(isopropyl)naphthalene	CAS:38640-62-9 EC:254-052-6	Asp. Tox. 1, H304; Aquatic Chronic 1, H410	01-2119565150-48-XXXX
≥5 - <10 %	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and	CAS:103758-98-1 EC:500-289-8	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1,1A,1B, H317; Aquatic Chronic 2, H411	01-2119972321-42-0001

tetraethylenepentamine

≥5 - <10 %	fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	CAS:68082-29-1 EC:500-191-5	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318; Aquatic Chronic 2, H411	01-2119972320-44-xxxx
≥5 - <10 %	Phenol, styrenated	CAS:61788-44-1 EC:262-975-0	Skin Irrit. 2, H315; Skin Sens. 1A, H317; Aquatic Chronic 2, H411	01-2119980970-27-XXXX

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 ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Give nothing to eat or drink.

In case of Inhalation:

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

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.
- Remove persons to safety.

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.

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 Type	Country	Ceiling	Long Term mg/m ³	Long Term ppm	Short Term mg/m ³	Short Term ppm	Behaviour	Note	
m-xylylenediamine	ACGIH	NNN	C			0,100			Skin - Eye, skin, and GI irr	
		National FINLAND				0,1			FINLAND, takvärde, hud	
		National NORWAY	C			0,1			T	
		National AUSTRIA			0,1		0,100			
		ACGIH NNN	C			0,1				
		National FRANCE				0,100				
		National DENMARK	C			0,1	0,020			
		National FINLAND	C			0,1				
		Malaysi a OEL	MALAYSIA	C			0,100			
		National PORTUGAL	C			0,1				
		National SLOVENIA			0,100					
		ACGIH	C			0,1				
		National NORWAY	C			0,1				

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark
m-xylylenediamine	1477-55-0	0,094 mg/kg	Fresh Water		
		0,0094 mg/l	Marine water		
		0,43 mg/kg	Freshwater sediments		
		0,043 mg/kg	Marine water sediments		
		0,152 mg/l	Intermittent release		
		0,045 mg/kg	Soil		
		10 mg/l	Microorganisms in sewage		

			treatments
Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	90640-67-8	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
trimethylhexamethylenedi amine	25513-64-8	0,102 mg/l	Fresh Water
		0,622 mg/kg	Freshwater sediments
		0,01 mg/l	Marine water
		0,062 mg/kg	Marine water sediments
		72 mg/l	Microorganisms in sewage treatments
		10 mg/kg	Soil
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and tetraethylenepentamine	103758-98-1	0,00263 mg/l	Fresh Water
		0,000263 mg/l	Marine water
		236,01 mg/kg	Freshwater sediments
		26,301 mg/kg	Marine water sediments
fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	68082-29-1	0,00434 mg/l	Fresh Water
		0,000434 mg/l	Marine water
		434,02 mg/kg	Freshwater sediments
		43,4 mg/kg	Marine water sediments
		86,78 mg/kg	Soil

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industrial	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
m-xylylenediamine	1477-55-0	0,33 mg/kg			Human Dermal	Long Term, systemic effects	

		1,2 mg/m3		Human Inhalation	Long Term, systemic effects
		0,2 mg/m3		Human Inhalation	Long Term, local effects
Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	90640-67-8	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 Oral	Long Term, systemic effects
		0, 028000	0, 430000 mg/cm2	Human Dermal	Short Term, local effects
Fatty acids, C18- unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and tetraethylenepentam ine	103758-98-1	1,1 mg/kg	0,56 mg/kg	Human Dermal	Long Term (repeated)
			0,56 mg/kg	Human Oral	Long Term (repeated)
		3,9 mg/m3	0,97 mg/m3	Human Inhalation	Long Term (repeated)
fatty acids, C18 unsatd., dimers,oligomeric reaction products with teta	68082-29-1	0,00039 mg/cm2	0,00039 0, 000097 mg/cm2	Human Inhalation	Long Term (repeated)
		1,1 mg/kg	0,00011 0,56 mg/cm2 mg/kg	Human Dermal	Long Term (repeated)

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 $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

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

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

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

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.

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 transparent

Odour: ammonia
Odour threshold: N.A.
pH: 11.00
Melting point / freezing point: N.A.
Initial boiling point and boiling range: 200 °C (392 °F)
Flash point: 100 °C (212 °F)
Evaporation rate: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour density: N.A.
Vapour pressure: 0.01
Relative density: 1.12 g/cm³
Solubility in water: partly soluble
Partition coefficient (n-octanol/water): N.A. - This product is a mixture
Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature
Decomposition temperature: N.A.
Viscosity: 320.00 cPs
Explosive properties: N.A. - 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:

m-xylylenediamine a) acute toxicity LD50 Oral Mouse = 930 mg/kg
LD50 Skin Rabbit = 2000 mg/kg
LC50 Inhalation Dust Rat = 2,4 mg/l 4h
LD50 Skin Rabbit = 2 g/kg
LC50 Inhalation Rat = 700 ppm 1h
LD50 Oral Rat = 660 mg/kg

Amines,
polyethylenepoly-,
triethylenetetramine
fraction (TETA) a) acute toxicity LD50 Oral Rat = 1760 mg/kg

LD50 Skin Rabbit = 1465 mg/kg
b) skin corrosion/irritation Skin Irritant Positive

trimethylhexamethylenedi a) acute toxicity LD50 Oral Rat = 910 mg/kg
amine

bis(isopropyl)naphthalene a) acute toxicity
 LD50 Oral Rat > 4000 mg/kg
 LD50 Skin Rat > 4000 mg/kg
 LC50 Inhalation Rat > 5,6 mg/l 4h
 LD50 Skin Rat > 4500 mg/kg
 LC50 Inhalation Rat > 5,64 mg/l 4h
 LD50 Oral Rat = 3900 mg/kg

Fatty acids, C18-unsatd., a) acute toxicity
 dimers, oligomeric
 reaction products with
 tall-oil fatty acids and
 tetraethylenepentamine
 LD50 Oral Rat > 2000 mg/kg
 LD50 Skin Rat > 2000 mg/kg

fatty acids, C18 unsatd., a) acute toxicity
 dimers, oligomeric
 reaction products with
 teta
 LD50 Oral Rat > 2000 mg/kg
 LD50 Skin Rat > 2000 mg/kg

Phenol, styrenated a) acute toxicity
 LD50 Oral Rat > 2000 mg/kg
 LD50 Skin Rat > 2000 mg/kg
 LC50 Inhalation Rat > 5 mg/l
 LD50 Skin Rabbit > 7940 mg/kg
 LC50 Inhalation Rat > 2,5 mg/l 6h
 LD50 Oral Rat 2100 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:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
m-xylylenediamine	CAS: 1477-55-0 - EINECS: 216-032-5	a) Aquatic acute toxicity : EC50 Algae = 20 mg/L 72 a) Aquatic acute toxicity : EC50 Daphnia = 15,2 mg/L 48 a) Aquatic acute toxicity : LC50 Fish > 100 mg/L 96 a) Aquatic acute toxicity : LC50 Fish = 87,6 mg/L 96

Amines, polyethylenepoly-, triethylenetetramine fraction (TETA)	CAS: 90640-67-8 - EINECS: 292-588-2 - INDEX: 612-059-00-5	a) Aquatic acute toxicity : LC50 Fish = 330 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 31,1 mg/L 48
		a) Aquatic acute toxicity : EC50 Algae = 20 mg/L 72
trimethylhexamethylenediamine	CAS: 25513-64-8 - EINECS: 247-063-2	a) Aquatic acute toxicity : LC50 Fish = 174 mg/L 48
		a) Aquatic acute toxicity : EC50 Daphnia = 31,5 mg/L 24
		a) Aquatic acute toxicity : EC50 Algae = 43,5 mg/L 72
		a) Aquatic acute toxicity : NOEC Algae = 16 mg/L 72
		c) Bacteria toxicity : EC50 Bacteria = 89 mg/L 17
		b) Aquatic chronic toxicity : NOEC Fish = 10,9 mg/L - 34 d
		b) Aquatic chronic toxicity : NOEC Daphnia = 1,02 mg/L - 21 d
		d) Terrestrial toxicity : NOEC = 1000 mg/kg - 28 d
bis(isopropyl)naphthalene	CAS: 38640-62-9 - EINECS: 254-052-6	a) Aquatic acute toxicity : LL50 Daphnia = 1,7 mg/L 48
		a) Aquatic acute toxicity : NOEC Daphnia = 0,013 mg/L - 21 d
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio > 1000 mg/L 96h
		a) Aquatic acute toxicity : LC50 Fish Oryzias latipes > 1000 mg/L 96h
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and tetraethylenepentamine	CAS: 103758-98-1 - EINECS: 500-289-8	a) Aquatic acute toxicity : LC50 Fish = 7,07 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 5,18 mg/L 48
		a) Aquatic acute toxicity : EC50 Algae = 2,63 mg/L 72
		c) Bacteria toxicity : NOEC Bacteria = 1,41 mg/L
fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	CAS: 68082-29-1 - EINECS: 500-191-5	a) Aquatic acute toxicity : LC50 Algae = 1,25 mg/L 72
		a) Aquatic acute toxicity : EC50 Fish = 7,07 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae > 4,34000 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish > 10,00000 mg/L 96
		a) Aquatic acute toxicity : EC10 Algae > 130,00000 mg/L 72
Phenol, styrenated	CAS: 61788-44-1 - EINECS: 262-975-0	a) Aquatic acute toxicity : LC50 Daphnia = mg/L 48
		a) Aquatic acute toxicity : LC50 Algae = 3,14 mg/L 72
		a) Aquatic acute toxicity : EC50 Fish = 14,8 mg/L 96

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. (m-xylylendiamine)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylendiamine)

14.3. Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

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): 2 (E)

Air (IATA):

IATA-Passenger Aircraft: 851

IATA-Cargo Aircraft: 855

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: 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):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Products belongs to category E2	200	500

German Water Hazard Class

2

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 (1993) A+B: 5-5 (1993)

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
EUH071	Corrosive to the respiratory tract.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1-1A-1B	Skin Sens. 1,1A,1B	Skin Sensitisation, Category 1,1A,1B

3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

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

3.1/4/Oral	Calculation method
3.2/1A	Calculation method
3.3/1	Calculation method
3.4.2/1A	Calculation method
4.1/C2	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.

Paragraphs modified from the previous revision:

- 2. HAZARDS IDENTIFICATION
- 5. FIRE-FIGHTING MEASURES
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION