

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

1.1. Product identifier

Mixture identification:

Trade name: MAPECOAT I 24 / B

Trade code: 905C999

UFI: C6K0-70UP-K00P-WFJW

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)02376731 (office hours) - Fax: +39-02-37673.214 - www.mapei.it

Responsable: sicurezza@mapei.it

1.4. Emergency telephone number

Centro antiveneni, Azienda ospedaliera "Antonio Cardarelli", III Servizio di anestesia e rianimazione, via Antonio Cardarelli 9, Napoli - Tel. 081 5453333

Centro antiveneni, Azienda ospedaliera universitaria Careggi, U.O. Tossicologia medica, via Largo Brambilla 3, Firenze - Tel. 055 7947819

Centro antiveneni, Centro nazionale d'informazione tossicologica, IRCCS Fondazione Salvatore Maugeri Clinica del lavoro e della riabilitazione, via Salvatore Maugeri 10, Pavia - Tel. 0382 24444

Centro antiveneni, Azienda ospedaliera Niguarda Ca' Granda, piazza Ospedale Maggiore 3, Milano - Tel. 02 66101029

Centro antiveneni, Azienda ospedaliera "Papa Giovanni XXIII", Tossicologia clinica, Dipartimento di farmacia clinica e farmacologia, piazza OMS 1, Bergamo - Tel. 800 883300

Centro antiveneni Policlinico "Umberto I", PRGM tossicologia d'urgenza, viale del Policlinico 155, Roma - Tel. 06 49978000

Centro antiveneni del Policlinico "Agostino Gemelli", Servizio di tossicologia clinica, largo Agostino Gemelli 8, Roma - Tel. 06 3054343

Centro antiveneni, Azienda ospedaliera universitaria Riuniti, viale Luigi Pinto 1, Foggia - Tel. 800 183459

Centro antiveneni, Ospedale pediatrico Bambino Gesù, Dipartimento emergenza e accettazione DEA, piazza Sant'Onofrio 4, Roma - Tel. 06 68593726

Centro antiveneni dell'Azienda ospedaliera universitaria integrata (AOUI) di Verona sede di Borgo Trento, piazzale Aristide Stefani, 1 - 37126 Verona - Tel. 800 011858

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. 1 May cause an allergic skin reaction.

Aquatic Chronic 3 Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word



Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P261 Avoid breathing mist/vapours/spray.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/clothing and eye/face protection.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- 1
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- 3
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 8
- P310 Immediately call a POISON CENTER.

Contains

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

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

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not Relevant

3.2. Mixtures

Mixture identification: MAPECOAT I 24 / B

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥50 - <75 %	Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	CAS:38294-64-3, 68609-08-5 EC:500-101-4	Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Chronic 3, H412	01-2119965165-33-XXXX
≥25 - <50 %	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
≥0.49 - <1 %	Salicylic acid	CAS:69-72-7 EC:200-712-3 Index:607-732-00-5	Acute Tox. 4, H302; Eye Dam. 1, H318; Repr. 2, H361	01-2119486984-17-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:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

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

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
benzyl alcohol	National	FINLAND	Long Term: 45 mg/m ³ - 10 ppm

National POLAND	Long Term: 240 mg/m3
DFG GERMANY	Ceiling - Short Term: 44 mg/m3 - 10 ppm
National GERMANY	Long Term: 22 mg/m3 - 5 ppm
NDS POLAND	Long Term: 240 mg/m3
National CZECH REPUBLIC	Long Term: 40 mg/m3
National LATVIA	Long Term: 5 mg/m3
National CZECH REPUBLIC	Ceiling - Short Term: 80 mg/m3
National BULGARIA	Long Term: 5 mg/m3
National LITHUANIA	Long Term: 5 mg/m3
National SLOVENIA	Long Term: 22 mg/m3 - 5 ppm; Short Term: 44 mg/m3 - 10 ppm

Predicted No Effect Concentration (PNEC) values

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane
CAS: 38294-64-3, 68609-08-5

- Exposure Route: Fresh Water
- Exposure Route: Marine water
- Exposure Route: Intermittent release
- Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l
- Exposure Route: Freshwater sediments
- Exposure Route: Marine water sediments
- Exposure Route: Soil
- Exposure Route: Oral; PNEC Limit: 1 mg/kg
- Exposure Route: Fresh Water; PNEC Limit: 1 mg/l

benzyl alcohol
CAS: 100-51-6

- Exposure Route: Marine water; PNEC Limit: 0,1 mg/l
- Exposure Route: Freshwater sediments; PNEC Limit: 5,27 mg/kg
- Exposure Route: Marine water sediments; PNEC Limit: 0,527 mg/kg
- Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 39 mg/l
- Exposure Route: Soil; PNEC Limit: 0,45 mg/kg
- Exposure Route: Intermittent release; PNEC Limit: 2,3 mg/l
- Exposure Route: Fresh Water; PNEC Limit: 0,2 mg/l

Salicylic acid
CAS: 69-72-7

- Exposure Route: Intermittent release; PNEC Limit: 1 mg/l
- Exposure Route: Marine water; PNEC Limit: 0,02 mg/l
- Exposure Route: Freshwater sediments; PNEC Limit: 1,42 mg/kg
- Exposure Route: Marine water sediments; PNEC Limit: 0,14 mg/kg
- Exposure Route: Soil; PNEC Limit: 0,16 mg/kg
- Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 162 mg/l

Derived No Effect Level (DNEL) values

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane
CAS: 38294-64-3, 68609-08-5

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 0,493 mg/m3; Consumer: 0,74 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 0,14 mg/kg; Consumer: 0,05 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects

benzyl alcohol
CAS: 100-51-6

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 20 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 4 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 110 mg/m³; Consumer: 27 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 22 mg/m³; Consumer: 5,4 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Worker Industry: 40 mg/kg; Consumer: 20 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 8 mg/kg; Consumer: 4 mg/kg

Salicylic acid
CAS: 69-72-7

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 16 mg/m³; Consumer: 0,2 mg/m³

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 4 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 2 mg/kg; Consumer: 1 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 4 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 1 mg/kg

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 ISO 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 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.

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to appropriate EN standards, like EN 136, 140, 143, 149, 14387 for information on selection and use of appropriate respiratory protection equipment.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: liquid

Colour: transparent

Odour: ammonia

Odour threshold: Not available

Melting point / freezing point: Not available

Initial boiling point and boiling range: Not available

Flammability: N.A.
Upper/lower flammability or explosive limits: Not available
Flash point: 100 °C (212 °F)
Auto-ignition temperature: Not available
Decomposition temperature: Not available
pH: 8.00
Viscosity: 500.00 cPs
Kinematic viscosity: Not available
Solubility in water: partly soluble
Solubility in oil: soluble
Partition coefficient (n-octanol/water): Not available
Vapour pressure: 0.01
Relative density: 1.00 g/cm³
Vapour density: Not available

Particle characteristics:

Particle size: Not available

9.2. Other information

Miscibility: Not available
Conductivity: Not available
Explosive properties: ==
No other relevant 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 hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Corr. 1B(H314)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Reaction products of 3- a) acute toxicity NOAEL Oral Rat = 30 mg/kg

aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

benzyl alcohol	a) acute toxicity	LC50 Inhalation Mist Rat = 11, mg/l 4h LD50 Oral Rat = 1230, mg/kg
	g) reproductive toxicity	NOAEL Rat = 1072, mg/m3
Salicylic acid	a) acute toxicity	LC50 Inhalation Rat > 0,9 mg/l 1h LD50 Oral Rat = 891 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rat > 2 g/kg LC50 Inhalation Rat > 900 mg/m3 1h LD50 Oral Rat = 891 mg/kg LD50 Skin Rat > 2 g/kg

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

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

Eco-Toxicological Information:

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

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	CAS: 38294-64-3, 68609-08-5 - EINECS: 500-101-4	a) Aquatic acute toxicity : LL50 Fish = 70,7 mg/L 96h a) Aquatic acute toxicity : NOELR Fish = 50 mg/L 96h a) Aquatic acute toxicity : NOELR Daphnia = 4,3 mg/L 48h a) Aquatic acute toxicity : EL50 Daphnia = 11,1 mg/L 48h a) Aquatic acute toxicity : EL50 Algae = 79,4 mg/L 72h a) Aquatic acute toxicity : NOEC Algae = 3,1 mg/L 72h
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 : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA
Salicylic acid	CAS: 69-72-7 - EINECS: 200-712-3 - INDEX: 607-732-00-5	a) Aquatic acute toxicity : EC50 Daphnia = 870 mg/L 48 a) Aquatic acute toxicity : LC50 Fish = 90 mg/L

- a) Aquatic acute toxicity : EC50 Algae > 100 mg/L 72
- a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 870 mg/L 48h EPA

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Duration	Value	Notes:
Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Non-readily biodegradable	Oxygen consumption	28 d	0	apparent toxicity or inhibition of the micro inoculum

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Not bioaccumulative	BCF - Bioconcentration factor		
		Kow - Partition coefficient	3,600	log Pow 25°C, pH 7

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

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.

Hazardous waste: Yes

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.

SECTION 14: Transport information

14.1. UN number or ID number

2735

14.2. UN proper shipping name

ADR-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (cycloaliphatic polyamines)

IATA-Technical name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (cycloaliphatic polyamines)

IMDG-Technical name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (cycloaliphatic polyamines)

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

IMDG-EMS: F-A, S-B

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-EMS: F-A, S-B

14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : 130 (A+B) 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) n. 2020/878

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)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

None

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: 75

SVHC Substances:

SVHC substances not present in a concentration $\geq 0.1\%$ (w/w)

National regulations

Lagerklasse (TRGS-510): 8B - Non-combustible corrosive substances

German Water Hazard Class.

3

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.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361	Suspected of damaging fertility or the unborn child if inhaled and in contact with skin.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.7/2	Repr. 2	Reproductive toxicity, 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
3.2/1B	Calculation method
3.3/1	Calculation method
3.4.2/1	Calculation method
4.1/C3	Calculation method

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

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
 KAFH: KAFH
 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:

- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information

- SECTION 15: Regulatory information
- SECTION 16: Other information