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

1.1. Product identifier

Mixture identification:

Trade name: MAPECOAT I 24 /A

Trade code: 905C9990

UFI: P4K0-R059-9006-73YU

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

Recommended use: Epoxy paint

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

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

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

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

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

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

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

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

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

Centro antiveleni 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)

Flam. Liq. 3	Flammable liquid and vapour.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2	Causes serious eye irritation.
Skin Sens. 1	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) No 1272/2008 (CLP):

Hazard pictograms and Signal Word

Warning

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/clothing and eye/face protection.
P370+P378	In case of fire, use a CO2 fire extinguisher to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.

Special Provisions:

EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Contains

bis-[4-(2,3-epoxipropoxi)phenyl]propane

Formaldehyde, oligomeric reaction products
with 1-chloro-2,3-epoxypropane and phenol

1,6-Hexanediol Diglycidyl Ether

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

This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not Relevant

3.2. Mixtures

Mixture identification: MAPECOAT I 24 /A

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥25 - <50 %	bis-[4-(2,3-epoxipropoxi)phenyl]propane	CAS:1675-54-3, 25085-99-8 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2 H319	01-2119456619-26-XXXX
≥5 - <10 %	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS:9003-36-5 EC:701-263-0	Skin Irrit. 2, H315; Aquatic Chronic 2, H411; Skin Sens. 1, H317	01-2119454392-40-XXXX
≥2.5 - <5 %	ethanol; ethyl alcohol	CAS:64-17-5 EC:200-578-6 Index:603-002-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319 Specific Concentration Limits: 50% ≤ C < 100%: Eye Irrit. 2 H319	01-2119457610-43-xxxx
≥0.1 - <0.25 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29-XXXX
≥0.1 - <0.25 %	Propylidynetrimethanol	CAS:77-99-6 EC:201-074-9	Repr. 2, H361fd	01-2119486799-10-XXXX

≥0.1 - <0.25 %	1,6-Hexanediol Diglycidyl Ether	CAS:933999-84-9, 16096-31-4 EC:618-939-5	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412; Repr. 1B, H360FD	01-2119463471-41-0005
≥0.025 - <0.05 %	free crystalline silica (Ø >10 µ)	CAS:14808-60-7 EC:238-878-4	Substance with a Union workplace exposure limit.	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

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:

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:

In case of fire, use a CO_2 fire extinguisher to extinguish.

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.

Burning produces heavy smoke.

5.3. Advice for firefighters

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

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.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

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

Wash with plenty of water.

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.

Advice on general occupational hygiene:

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

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
ethanol; ethyl alcohol CAS: 64-17-5	DFG	GERMANY	Short Term: Ceiling - 1520 mg/m3 - 800 ppm
	ACGIH		Short Term: 1000 ppm A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;upper respiratory tract irritation;
	National	SWEDEN	Long Term: 1000 mg/m3 - 500 ppm
	National	FRANCE	Long Term: 1900 mg/m3 - 1000 ppm; Short Term: 9500 mg/m3 - 5000 ppm
	National	SPAIN	Short Term: 1910 mg/m3 - 1000 ppm
	National	GREECE	Long Term: 1900 mg/m3 - 1000 ppm
	National	DENMARK	Long Term: 1900 mg/m3 - 1000 ppm
	National	FINLAND	Long Term: 1900 mg/m3 - 1000 ppm; Short Term: 2500 mg/m3 - 1300 ppm
	National	GERMANY	Long Term: 960 mg/m3 - 500 ppm
	National	PORTUGAL	Long Term: 1000 ppm
	National	NORWAY	Long Term: 950 mg/m3 - 500 ppm; Short Term: 1187.5 mg/m3 - 625 ppm
	National	BELGIUM	Long Term: 1907 mg/m3 - 1000 ppm
	NDS	POLAND	Long Term: 1900 mg/m3
	CHE	SWITZERLAND	Short Term: 1920 mg/m3 - 1000 ppm
	NDS	NETHERLANDS	Long Term: 260 mg/m3; Short Term: 1900 mg/m3
	National	CZECH REPUBLIC	Long Term: 1000 mg/m3
	National	HUNGARY	Long Term: 1900 mg/m3; Short Term: 7600 mg/m3

	Malaysia OEL	MALAYSIA	Long Term: 1880 mg/m3 - 1000 ppm
	National	ESTONIA	Long Term: 1000 mg/m3 - 500 ppm; Short Term: 1900 mg/m3 - 1000 ppm
	National	LATVIA	Long Term: 1000 mg/m3
	National	CZECH REPUBLIC	Short Term: Ceiling - 3000 mg/m3
	National	SLOVAKIA	Short Term: Ceiling - 1920 mg/m3
	National	SLOVAKIA	Long Term: 960 mg/m3 - 500 ppm
	National	SLOVENIA	Long Term: 1900 mg/m3 - 1000 ppm; Short Term: 7600 mg/m3 - 4000 ppm
	National	UNITED KINGDOM	Long Term: 1920 mg/m3 - 1000 ppm; Short Term: 5760 mg/m3 - 3000 ppm
	National	BULGARIA	Long Term: 1000 mg/m3
	National	ROMANIA	Long Term: 1900 mg/m3 - 1000 ppm; Short Term: 9500 mg/m3 - 5000 ppm
	National	LITHUANIA	Long Term: 1000 mg/m3 - 500 ppm; Short Term: 1900 mg/m3 - 1000 ppm
	National	CROATIA	Long Term: 1900 mg/m3 - 1000 ppm
	ACGIH		Short Term: 1000 ppm A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;upper respiratory tract irritation
	National	GERMANY	Long Term: 380 mg/m3 - 200 ppm
	National	SLOVENIA	Long Term: 960 mg/m3 - 500 ppm; Short Term: 1920 mg/m3 - 1000 ppm
2-methoxy-1-methylethyl acetate CAS: 108-65-6	ACGIH		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Skin
	SUVA		Long Term: 275 mg/m3 - 50 ppm
	National	SWEDEN	Long Term: 250 mg/m3 - 50 ppm; Short Term: 400 mg/m3 - 75 ppm SWEDEN, Short-term value, 15 minutes average value
	National	NORWAY	Long Term: 270 mg/m3 - 50 ppm H E
	National	FINLAND	Long Term: 270 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm FINLAND, hud
	NDS		Long Term: 260 mg/m3
	NDSCh		Long Term: 520 mg/m3
	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Skin
	National	GREECE	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	DENMARK	Long Term: 275 mg/m3 - 50 ppm
	National	BELGIUM	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	CZECH REPUBLIC	Short Term: Ceiling - 550 mg/m3
	National	SLOVAKIA	Short Term: Ceiling - 550 mg/m3
	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Behaviour Indicative Possibility of significant uptake through the skin
	DFG	GERMANY	Short Term: Ceiling - 270 mg/m3 - 50 ppm
	National	SWEDEN	Long Term: 275 mg/m3 - 50 ppm
	National	FRANCE	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	SPAIN	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	FINLAND	Long Term: 270 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	GERMANY	Long Term: 270 mg/m3 - 50 ppm
	National	PORTUGAL	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	NORWAY	Long Term: 270 mg/m3 - 50 ppm; Short Term: 337.5 mg/m3 - 75 ppm
	NDS	POLAND	Long Term: 260 mg/m3
	NDSCh	POLAND	Short Term: 520 mg/m3
	CHE	SWITZERLAND	Short Term: 275 mg/m3 - 50 ppm

	NDS	NETHERLANDS	Long Term: 550 mg/m3
	National	CZECH REPUBLIC	Long Term: 270 mg/m3
	National	HUNGARY	Long Term: 275 mg/m3; Short Term: 550 mg/m3
	National	ESTONIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	LATVIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	SLOVAKIA	Long Term: 275 mg/m3 - 50 ppm
	National	SLOVENIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	UNITED KINGDOM	Long Term: 274 mg/m3 - 50 ppm; Short Term: 548 mg/m3 - 100 ppm
	National	BULGARIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	ROMANIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	TUR	TURKEY	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	National	LITHUANIA	Long Term: 250 mg/m3 - 50 ppm; Short Term: 400 mg/m3 - 75 ppm
	National	CROATIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm
	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Behaviour Indicative Possibility of significant uptake through the skin
Propylidynetrimethanol CAS: 77-99-6	National	SWEDEN	Long Term: 5 mg/m3
	National	LITHUANIA	Short Term: Ceiling - 5 ppm
free crystalline silica (Ø >10 µ) CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis
	National	AUSTRALIA	Long Term: 0.05 mg/m3
	National	BELGIUM	Long Term: 0.1 mg/m3
	National	BULGARIA	Long Term: 0.07 mg/m3
	National	CROATIA	Long Term: 0.1 mg/m3
	National	CZECH REPUBLIC	Long Term: 0.1 mg/m3
	National	DENMARK	Long Term: 0.3 mg/m3 DENMARK, inhalable aerosol inhalable aerosol
	National	DENMARK	Long Term: 0.1 mg/m3 DENMARK, respirable aerosol respirable aerosol
	National	DENMARK	Long Term: 0.3 mg/m3
	National	DENMARK	Long Term: 0.1 mg/m3
	National	ESTONIA	Long Term: 0.1 mg/m3
	National	FINLAND	Long Term: 0.05 mg/m3
	National	FRANCE	Long Term: 0.1 mg/m3
	SUVA	GERMANY	Long Term: 0.15 mg/m3 50 µg/m³ (Partikel Durchmesser < 12 µm) - TRGS 906
	National	HUNGARY	Long Term: 0.15 mg/m3
	National	LITHUANIA	Long Term: 0.1 mg/m3
	Malaysia OEL	MALAYSIA	Long Term: 0.1 mg/m3 0.1 mg/m3 TWA (respirable dust)
	NDS	NETHERLANDS	Long Term: 0.075 mg/m3
	National	NORWAY	Long Term: 0.3 mg/m3 Totalstøv (total dust); K: Kjemikalier som skal betraktes som kreftfremkallende. (K: Chemicals to be treated as carcinogenic.)
	ACGIH		Long Term: 0.025 mg/m3 (R), A2 - Pulm fibrosis, lung cancer
	NDS	POLAND	Long Term: 0.1 mg/m3
	National	PORTUGAL	Long Term: 0.025 mg/m3

	National ROMANIA	Long Term: 0.1 mg/m3
	National SLOVAKIA	Long Term: 0.1 mg/m3; Short Term: 0.5 mg/m3
	National SLOVENIA	Long Term: 0.1 mg/m3
	National SPAIN	Long Term: 0.05 mg/m3
	National SWEDEN	Long Term: 0.1 mg/m3
	National SWITZERLAND	Long Term: 0.15 mg/m3 A
	EU	Long Term: 0.1 mg/m3 Behaviour Binding

Predicted No Effect Concentration (PNEC) values

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l
	Exposure Route: Fresh Water; PNEC Limit: 0.003 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.294 mg/kg
	Exposure Route: Marine water; PNEC Limit: 0.0003 mg/l
	Exposure Route: Marine water sediments; PNEC Limit: 0.0294 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.237 mg/kg
2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Fresh Water; PNEC Limit: 0.635 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.0635 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 3.29 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.329 mg/kg
	Exposure Route: Intermittent release; PNEC Limit: 6.35 mg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l
	Exposure Route: Soil; PNEC Limit: 0.29 mg/kg
1,6-Hexanediol Diglycidyl Ether CAS: 933999-84-9, 16096-31-4	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l
	Exposure Route: Fresh Water; PNEC Limit: 0.0115 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.283 mg/kg
	Exposure Route: Marine water; PNEC Limit: 0.00115 mg/l
	Exposure Route: Marine water sediments; PNEC Limit: 0.0283 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.223 mg/kg

Derived No Effect Level (DNEL) values

2-methoxy-1-methylethyl acetate CAS: 108-65-6	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 796 mg/kg; Consumer: 320 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 275 mg/m3; Consumer: 33 mg/m3
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 36 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Industry: 550 mg/m3
1,6-Hexanediol Diglycidyl Ether CAS: 933999-84-9, 16096-31-4	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 2.8 mg/kg
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 4.9 mg/m3

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 >=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 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.

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

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: various

Odour: Characteristic

Odour threshold: Not available

Melting point/freezing point: Not available

Boiling point or initial boiling point and boiling range: 78 °C (172 °F)

Flammability: The product is classified Flam. Liq. 3 H226

Lower and upper explosion limit: Lower and upper explosion limit: Not available

Flash point: 48 °C (118 °F)

Auto-ignition temperature: Not available

Decomposition temperature: Not available

pH: Not Relevant

Viscosity: 5,000.00 cPs

Kinematic viscosity: Not available

Solubility in water: Insoluble

Solubility in oil: soluble

Partition coefficient n-octanol/water (log value): Not available

Vapour pressure: Not available

Density and/or relative density: 1.43 g/cm3

Relative vapour density: Not available

Particle characteristics:

Particle size: Not available

9.2. Other information

Miscibility: Not available

Conductivity: Not available

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

Avoid contact with combustible materials. The product could catch fire.

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 Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
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:

bis-[4-(2,3-epoxipropoxi)phenyl] propane	a) acute toxicity	LD50 Skin Rabbit = 20 mg/kg
		LD50 Oral Rat = 11300 µL/kg
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg
		LD50 Skin Rat > 2000 mg/kg
	i) STOT-repeated exposure	NOAEL Oral = 250 mg/kg
ethanol; ethyl alcohol	a) acute toxicity	LD50 Oral Rat = 11500 mg/kg bw
		LC50 Inhalation Vapour Rat = 124.7 mg/l 4h
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg
		LD50 Skin Rabbit > 5000 mg/kg
	e) germ cell mutagenicity	NOAEL Inhalation Rat = 1000 ppm
	g) reproductive toxicity	NOAEL Inhalation Rat = 500 ppm
Propylidynetrimethanol	a) acute toxicity	LC50 Inhalation Rat > 0.29 mg/l 4h
		LD50 Oral Rat = 14100 mg/kg
1,6-Hexanediol Diglycidyl Ether	a) acute toxicity	LD50 Oral Rat = 2190 mg/kg
		LD50 Skin Rabbit > 4900 mg/kg
	i) STOT-repeated exposure	NOAEL Oral = 200 mg/kg

		NOAEL Inhalation = 16 mg/m3
free crystalline silica (Ø >10 µ)	a) acute toxicity	LD50 Oral > 2000 mg/kg
		LD50 Skin > 2000 mg/kg

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 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:

Toxic 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 2(H411)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
bis-[4-(2,3-epoxipropoxi)phenyl]propane	CAS: 1675-54-3, 25085-99-8 - EINECS: 216-823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish = 2 mg/L 96h
		a) Aquatic acute toxicity : EC50 Daphnia = 1.8 mg/L 48h
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS: 9003-36-5 - EINECS: 701-263-0	a) Aquatic acute toxicity : LC50 Fish = 5.7 mg/L 96h
		a) Aquatic acute toxicity : EC50 Daphnia = 2.55 mg/L 48h
		a) Aquatic acute toxicity : EC50 Algae = 1.8 mg/L 72h
ethanol; ethyl alcohol	CAS: 64-17-5 - EINECS: 200-578-6 - INDEX: 603-002-00-5	a) Aquatic acute toxicity : EC50 Daphnia > 10000 mg/L 48
		a) Aquatic acute toxicity : LC50 Fish > 11200 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae > 200 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 12 mL/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas > 100 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 13400 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna 9268 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2 mg/L 48h EPA
		d) Terrestrial toxicity : LC50 Worm Eisenia foetida 0.1 mg/cm2 48h IUCLID
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9 - INDEX: 607-195-00-7	a) Aquatic acute toxicity : LC50 Fish = 130 mg/L 96h
		a) Aquatic acute toxicity : EC50 Daphnia >= 100 mg/L 48h
		b) Aquatic chronic toxicity : NOEC Fish = 47.5 mg/L - 14 d
		b) Aquatic chronic toxicity : NOEC Daphnia >= 100 mg/L - 21 d
		b) Aquatic chronic toxicity : NOEC Algae >= 1000 mg/L
Propylidynetrimethanol	CAS: 77-99-6 - EINECS: 201-074-9	a) Aquatic acute toxicity : EC50 Daphnia Daphnia species = 13000 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 10330 mg/L 48h EPA

1,6-Hexanediol Diglycidyl Ether	CAS: 933999-84-9, 16096-31-4 - EINECS: 618-939-5	a) Aquatic acute toxicity : EC50 Daphnia = 47 mg/L 48
		a) Aquatic acute toxicity : LC50 Fish = 30 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae = 23.1 mg/L 48
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 30 mg/L 96h ECHA

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 or endocrine disruptor substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 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

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT RELATED MATERIAL (epoxy resins)

IATA-Technical name: PAINT RELATED MATERIAL (epoxy resins)

IMDG-Technical name: PAINT RELATED MATERIAL (epoxy resins)

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR exempt: No

ADR-Label: 3

ADR-Hazard identification number: -

ADR-Special Provisions: 163 367 650

ADR-Transport category (Tunnel restriction code): 3 (E)

ADR-Limited Quantity threshold: 5 L

Air (IATA):

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3 A72 A192

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 163 223 367 955

IMDG-EMS: F-E, S-E

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) : KIT 130.00 g/l - Category : Two-pack reactive performance coatings for specific end use such as floors - Solvent based

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):

Seveso III category according	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)

to Annex 1, part 1		
Product belongs to category: P5c	5000	50000
Product belongs to category: E2	200	500

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, 40

Restrictions related to the substances contained: 70, 75

SVHC Substances:

SVHC substances not present in a concentration ≥ 0.1% (w/w)

National regulations

Lagerklasse (TRGS-510): 10 - Combustible liquids, that cannot be assigned to any of the aforementioned LGK

German Water Hazard Class.

2

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H360FD	May damage fertility. May damage the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.7/1B	Repr. 1B	Reproductive toxicity, Category 1B
3.7/2	Repr. 2	Reproductive toxicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
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
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	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 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 5: Firefighting measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information