Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

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

1.1. **product identifiers**

Article No. (manufacturer/supplier)	906
Trade name/designation	Härter zu EPODIT KLB

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

1.3. **Details of the supplier of the safety data sheet**

supplier (manufacturer/importer/downstream user/distributor)
Vismara Unternehmungen CH-5000 Aarau www.farbladen.ch

Department responsible for information:
laboratory Manager

E-mail (competent person)	info@knuchel.ch

1.4. **Emergency telephone number**

Emergency telephone number	145 (+41 (0)44 251 51 51)

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

2.2. **Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H331	Toxic if inhaled.
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

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe vapour.
P261	Avoid breathing vapours.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.

P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P311	Call a POISON CENTER or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Keep locked up.
P501	Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

benzyl alcohol
M-Xylylenediamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

Supplemental hazard information

not applicable

2.3. **Other hazards**

No information available.

SECTION 3: Composition/information on ingredients

3.2. **Mixtures**

Description polyamine hardener, containing the following hazardous substances:

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
202-859-9 100-51-6 603-057-00-5	01-2119492630-38 benzyl alcohol Acute Tox. 4 H302 / Acute Tox. 4 H332 Acute toxicity estimate (ATE), ATE (oral): 1 mg/kg bw	40 - 60
220-666-8 2855-13-2 612-067-00-9	01-2119514687-32 3-aminomethyl-3,5,5-trimethylcyclohexylamine Acute Tox. 4 H312 / Acute Tox. 4 H302 / Skin Corr. 1B H314 / Skin Sens. 1 H317 / Aquatic Chronic 3 H412 Acute toxicity estimate (ATE), ATE (oral): 1 mg/kg bw / ATE (dermal): 1840 mg/kg bw	25 - 40
216-032-5 1477-55-0	01-2119480150-50 M-Xylylenediamine Acute Tox. 4 H302 / Acute Tox. 3 H331 / Skin Corr. 1B H314 / Skin Sens. 1B H317 / Aquatic Chronic 3 H412 Acute toxicity estimate (ATE), ATE (oral): 1200 mg/kg bw	15 - 25
247-063-2 25513-64-8	01-2119560598-25 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine Acute Tox. 4 H302 / Skin Corr. 1B H314 / Eye Dam. 1 H318 / Skin Sens. 1 H317 Acute toxicity estimate (ATE), ATE (oral): 500 mg/kg bw	1 - 5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. **Indication of any immediate medical attention and special treatment needed**

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. **Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers,

equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

not applicable

DNEL:

benzyl alcohol
Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6
DNEL acute dermal, short-term (systemic), Workers: 40 mg/kg
DNEL long-term dermal (systemic), Workers: 8 mg/kg
DNEL acute inhalative (systemic), Workers: 110 mg/m³
DNEL long-term inhalative (systemic), Workers: 22 mg/m³
DNEL acute dermal, short-term (systemic), Consumer: 20 mg/kg
DNEL long-term dermal (systemic), Consumer: 4 mg/kg
DNEL acute inhalative (systemic), Consumer: 27 mg/m³
DNEL long-term inhalative (systemic), Consumer: 5,4 mg/m³

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
EC No. 247-063-2 / CAS No. 25513-64-8
DNEL long-term oral (repeated), Workers: 0,05 mg/kg

PNEC:

benzyl alcohol
Index No. 603-057-00-5 / EC No. 202-859-9 / CAS No. 100-51-6
PNEC aquatic, freshwater: 1 mg/L
PNEC aquatic, marine water: 0,1 mg/L
PNEC aquatic, intermittent release: 2,3 mg/L
PNEC sediment, freshwater: 5,27 mg/kg
PNEC sediment, marine water: 0,527 mg/kg
PNEC, soil: 0,456 mg/kg
PNEC sewage treatment plant (STP): 39 mg/L

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
EC No. 247-063-2 / CAS No. 25513-64-8
PNEC aquatic, freshwater: 0,0295 mg/L
PNEC aquatic, marine water: 0,0029 mg/L
PNEC sediment, freshwater: 0,18 mg/kg

PNEC sediment, marine water: 0,18 mg/kg
PNEC, soil: 0,019 mg/kg

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Physical state:	**Liquid**
Colour:	**refer to label**
Odour:	**characteristic**
Odour threshold:	**not applicable**
Melting point/freezing point:	**not applicable**
Initial boiling point and boiling range:	**204 °C** Source: benzyl alcohol
Flammability:	**Flammable liquid and vapour.**
Lower and upper explosion limit:	
Lower explosion limit:	**1.3 Vol-%**
Upper explosion limit:	**13 Vol-%** Source: benzyl alcohol
Flash point:	**> 55 °C** Method: DIN 53213
Auto-ignition temperature:	**435 °C** Source: benzyl alcohol
Decomposition temperature:	**not applicable**
pH at 20 °C:	**not applicable**
Cinematic viscosity (40°C):	**> 700 mm²/s**
Viscosity at 20 °C:	**100 - 200 mPas**
Solubility(ies):	
Water solubility at 20 °C:	**partially soluble**
Partition coefficient: n-octanol/water:	**see section 12**
Vapour pressure at 20 °C:	**0.1 mbar** Source: benzyl alcohol

Density and/or relative density:

Density at 20 °C:	**1.02 g/cm³**
Relative vapour density:	**not applicable**
particle characteristics:	**not applicable**

9.2. **Other information**

Solid content:	**60 weight-%**

solvent content:

Organic solvents:	**40 weight-%**
Water:	**0 weight-%**

SECTION 10: Stability and reactivity

10.1. **Reactivity**
No information available.

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**
not applicable

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

11.1. **Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity

Harmful if swallowed.

Toxic if inhaled.

benzyl alcohol
oral, LD50, Rat: 1,23 mg/kg
dermal, LD50, Rat: 4,115 mg/kg
dermal, LD50, Rabbit: 2 mg/kg
oral, NOEL, Rat: 400 mg/kg
oral, NOEL, Mouse: 200 mg/kg
inhalative (vapours), NOAEC, Rat: 1072 mg/m³
Method: OECD 412

3-aminomethyl-3,5,5-trimethylcyclohexylamine
oral, LD50, Rat: 1,03 mg/kg
dermal, LD50, Rabbit: 1840 mg/kg

M-Xylylenediamine
oral, LD50, Rat: 1200 mg/kg
dermal, LD50, Rabbit: 2000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 1,34 mg/L (4 h)
Method: OECD 403
oral, LD50, Rat, female: 980 mg/kg
Method: OECD 401
dermal, LC50, Rat: 2000 mg/L (4 h)

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
oral, LD50, Rat: 500 mg/kg

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes severe skin burns and eye damage.

benzyl alcohol
Skin, Rabbit (4 h)
Method: OECD 404
non-irritant.; not corrosive
eyes, Rabbit
Method: OECD 405
Causes serious eye irritation.; not corrosive

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Skin, Rabbit (4 h)
Causes severe burns.
eyes
Causes serious eye damage.; Risk of blindness!

M-Xylylenediamine
Skin, Rat (4 h)
Directive 67/548/EEC, Annex V, B.4.
eyes, Rabbit (24 h)
Severe eye irritation

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Skin (4 h)
No data available
eyes
No data available

Respiratory or skin sensitisation

May cause an allergic skin reaction.

benzyl alcohol
Skin, Guinea pig: ; Evaluation not sensitising.
Method: OECD 406

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Skin, Guinea pig: ; Evaluation positive
Method: OECD 406
May cause an allergic skin reaction.

M-Xylylenediamine
Skin, Mouse:
Method: Oecd 429
in-vivo; May cause sensitization by skin contact.
Respiratory system:
No data available

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Skin:
No data available
Respiratory system:
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

benzyl alcohol
Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Carcinogenicity
Based on available data, the classification criteria are not met.
Reproductive toxicity
Based on available data, the classification criteria are not met.

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Carcinogenicity
Based on available data, the classification criteria are not met.
Reproductive toxicity

Based on available data, the classification criteria are not met.
Genotoxicity in vivo; Evaluation negative
Mutagenicity (mammalian cell test): Micronucleus.
Genotoxicity in vitro; Evaluation negative
Ames test

M-Xylylenediamine
Germ cell mutagenicity; Evaluation negative
Ames Test; S. typhimurium
Carcinogenicity; Evaluation negative
Reproductive toxicity
No data available
Germ cell mutagenicity; Evaluation negative
Mutagenicity (micronucleus test) Result: negative; Mouse

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available

STOT-single exposure; STOT-repeated exposure

benzyl alcohol
Specific target organ toxicity (single exposure)
Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)
Based on available data, the classification criteria are not met.
Repeated dose toxicity (subacute, subchronic, chronic)
No data available

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Specific target organ toxicity (single exposure)
The substance/mixture is not classified as toxic to target organs, single exposure.
Specific target organ toxicity (repeated exposure)
The substance/mixture is not classified as target organ toxic, repeated exposure.

M-Xylylenediamine
Specific target organ toxicity (single exposure)
No data available
Specific target organ toxicity (repeated exposure)
No data available

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Specific target organ toxicity (single exposure)
No data available
Specific target organ toxicity (repeated exposure)
No data available

Aspiration hazard

benzyl alcohol
Aspiration hazard
May be harmful if swallowed.; May be harmful if inhaled.; non-irritant.

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Aspiration hazard
Based on available data, the classification criteria are not met.

M-Xylylenediamine
Aspiration hazard
No data available

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Aspiration hazard
No data available

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

11.2. **Information on other hazards**

Endocrine disrupting properties
No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

benzyl alcohol
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 2,18 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia pulex (water flea): 2,94 mg/L (48 h)
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 0,11 mg/L (72 h)
Fish toxicity, LC50, Lepomis macrochirus (Bluegill): 10 ppm (96 h)
Algae toxicity, EC50, Algae: 2,6 mg/L (72 h)
Algae toxicity, NOEC, Skeletonema costatum: 0,027 mg/L (72 h)

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Fish toxicity, LC50, Leuciscus idus (golden orfe): 185 mg/L (48 h)
Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 3 mg/L (21 d)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 42 mg/L (24 h)
Algae toxicity, EC50, Scenedesmus subspicatus: 50 mg/L (72 h)
Bacteria toxicity, EC10, Pseudomonas putida: 1120 mg/L (18 h)
Fish toxicity, LC50, Danio rerio (zebrafish): 110 mg/L (96 h)

M-Xylylenediamine
Fish toxicity, LC50, Oryzias latipes: 87,6 mg/L (96 h)
Method: OECD 203
semistatic
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 15,2 mg/L (48 h)
Method: OECD 202
Static test
Algae toxicity, EC50, Selenastrum capricornutum: 32,1 mg/L (72 h)
Method: OECD 201
Static test
Bacteria toxicity, EC50, Sludge treatment: > 1000 mg/L (30 h)
Method: OECD 209
respiratory inhibition
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): > 100 mg/L (96 h)
Algae toxicity, IC50: 12 mg/L (72 h)

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Algae toxicity, EC50, Scenedesmus subspicatus: 29,5 mg/L (72 h)
Fish toxicity, LC50, Leuciscus idus melanotus: 174 mg/L (72 h)
Fish toxicity, LC50: 174 mg/L (48 h)
Daphnia toxicity, EC50: 34,5 mg/L (24 h)

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

12.2. **Persistence and degradability**

benzyl alcohol
Biodegradation: 92 - 96 (14 d)
Method: OECD 301C
Readily biodegradable (according to OECD criteria)

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Biodegradation: < 10 percent (28 d); Evaluation Poorly eliminated from water.

M-Xylylenediamine
Biodegradation: 49 percent (28 d); Evaluation Not readily biodegradable (according to OECD criteria)
Method: OECD 301B
aerobic

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Biodegradation:
No data available

12.3. **Bioaccumulative potential**

benzyl alcohol
Distribution coefficient n-octanol/water (log KOW): 1,05
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Distribution coefficient n-octanol/water (log KOW):
No further relevant information available.

M-Xylylenediamine
Distribution coefficient n-octanol/water (log KOW):
No significant bioaccumulation.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Distribution coefficient n-octanol/water (log KOW):
No data available

Bioconcentration factor (BCF)

benzyl alcohol
Bioconcentration factor (BCF), fish: 1,37

12.4. **Mobility in soil**

benzyl alcohol
soil:
No further relevant information available.

3-aminomethyl-3,5,5-trimethylcyclohexylamine
soil:
No data available

M-Xylylenediamine
soil:
No data available

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
soil:
No data available

12.5. **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Endocrine disrupting properties**
No information available.

12.7. **Other adverse effects**
No information available.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Dispose of waste according to applicable legislation.

List of proposed waste codes/waste designations in accordance with EWC
080111* Waste paint and varnish containing organic solvents or other dangerous substances
*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN number or ID number**

UN 2734

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Amines, liquid, corrosive, flammable, n.o.s. ((1,3-Bis(aminomethyl)benzene)
Sea transport (IMDG):	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. ((1,3-Bis(aminomethyl)benzene)
Air transport (ICAO-TI / IATA-DGR):	Amines, liquid, corrosive, flammable, n.o.s. ((1,3-Bis(aminomethyl)benzene)

14.3. **Transport hazard class(es)**

8 (3)

14.4. **Packing group**

II

14.5. **Environmental hazards**

Land transport (ADR/RID)	not applicable
Marine pollutant	not applicable

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

Tunnel restriction code	D/E

Sea transport (IMDG)

EmS-No.	F-E, S-C

14.7. **Maritime transport in bulk according to IMO instruments**

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]
VOC-value (in g/L): 408

National regulations

Restrictions of occupation
Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

15.2. **Chemical Safety Assessment**
For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
202-859-9 100-51-6	benzyl alcohol	01-2119492630-38
220-666-8 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	01-2119514687-32

216-032-5 1477-55-0	M-Xylylenediamine	01-2119480150-50
247-063-2 25513-64-8	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	01-2119560598-25

SECTION 16: Other information

Full text of classification in section 3

Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.
Skin Sens. 1B / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	Flammable liquids	On basis of test data.
Acute Tox. 4	Acute toxicity (oral)	Calculation method.
Acute Tox. 3	Acute toxicity (inhalative)	Calculation method.
Skin Corr. 1B	Skin corrosion/irritation	Calculation method.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Aquatic Chronic 3	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in

section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.