Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

VFL
Vismara Farbladen

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

1.1. **product identifiers**

Article No. (manufacturer/supplier)	2568
Trade name/designation	Hardener Quick A-2605 for 2K-ECLAPOX EP

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:
Labor
E-mail info@eclatin.ch

1.4. **Emergency telephone number**

Emergency telephone number	+41 32 622 41 41
Toxikologisches Zentrum	+41 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.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Resp. Sens. 1 / H334	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2.2. **Label elements**

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

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapour.
P261	Avoid breathing vapours.
P280	Wear protective gloves and eye/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
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.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.

P403 + P235 Store in a well-ventilated place. Keep cool.

Hazard components for labelling
butan-1-ol
Alkylated polyamine (cashew)
Xylene
Fatty acids, C18-unsaturated, dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine

Supplemental hazard information
not applicable

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

Description Polyaminaddukt

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

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
68413-28-5	Alkylated polyamine (cashew) Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Resp. Sens. 1 H334	25 - 50
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	12.5 - 20
202-859-9 100-51-6 603-057-00-5	01-2119492630-38 benzyl alcohol Acute Tox. 4 H332 / Acute Tox. 4 H302	10 - 12.5
200-751-6 71-36-3 603-004-00-6	01-2119484630-38 butan-1-ol Flam. Liq. 3 H226 / Acute Tox. 4 H302 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336	5 - 10
202-849-4 100-41-4 601-023-00-4	01-2119489370-35 ethylbenzene Flam. Liq. 2 H225 / Acute Tox. 4 H332 / STOT RE 2 H373 / Asp. Tox. 1 H304	2.5 - 5
605-296-0 162627-17-0	01-2119970640-38 Fatty acids, C18-unsaturated, dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine Skin Sens. 1 H317	< 0.5

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:

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

WEL, TWA: 220 mg/m3; 50 ppm
WEL, STEL: 441 mg/m3; 100 ppm
Remark: (may be absorbed through the skin)

BMGV, TWA: 650 mmol/mol creatinine
Remark: methyl hippuric acid; urine; end of exposure or end of shift

butan-1-ol
Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

WEL, STEL: 154 mg/m3; 50 ppm
Remark: (may be absorbed through the skin)

ethylbenzene
Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

WEL, TWA: 441 mg/m3; 100 ppm
WEL, STEL: 552 mg/m3; 125 ppm
Remark: (may be absorbed through the skin)

Additional information
TWA : Long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

DNEL:

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day
DNEL acute inhalative (local), Workers: 442 mg/m³
DNEL acute inhalative (systemic), Workers:
DNEL long-term inhalative (local), Workers: 221 mg/m³
DNEL long-term inhalative (systemic), Workers: 221 mg/m³
DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day
DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day
DNEL acute inhalative (local), Consumer: 260 mg/m³
DNEL acute inhalative (systemic), Consumer: 260 mg/m³
DNEL long-term inhalative (local), Consumer: 65,3 mg/m³
DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m³

ethylbenzene
Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4
DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day
DNEL long-term inhalative (systemic), Workers: 77 mg/m³
DNEL long-term oral (repeated), Consumer: 1,6 mg/kg bw/day
DNEL long-term inhalative (systemic), Consumer: 15 mg/m³

butan-1-ol
Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

DNEL long-term oral (repeated), Workers: 3,125 mg/kg
DNEL acute inhalative (local), Workers: 310 mg/m³
DNEL acute inhalative (systemic), Workers: 310 mg/m³
DNEL long-term inhalative (local), Workers: 310 mg/m³
DNEL long-term inhalative (systemic), Workers: 310 mg/m³
DNEL long-term oral (local): 3,125 mg/kg
DNEL long-term inhalative (local), Consumer: 55 mg/m³
DNEL long-term inhalative (systemic), Consumer: 55 mg/m³

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

PNEC:

Xylene
Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7
PNEC aquatic, freshwater: 0,327 mg/L
PNEC aquatic, marine water: 0,327 mg/L
PNEC sediment, freshwater: 12,46 mg/kg
PNEC sediment, marine water: 12,46 mg/kg
PNEC, soil: 2,31 mg/kg
PNEC sewage treatment plant (STP): 6,58 mg/L

ethylbenzene
Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4
PNEC aquatic, freshwater: 0,1 mg/L
PNEC aquatic, marine water: 0,01 mg/L
PNEC sediment, freshwater: 13,7 mg/kg
PNEC sediment, marine water: 1,37 mg/kg
PNEC, soil: 2,68 mg/kg
PNEC sewage treatment plant (STP):

butan-1-ol
Index No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3
PNEC aquatic, freshwater: 0,082 mg/L
PNEC aquatic, marine water: 0,0082 mg/L
PNEC aquatic, intermittent release: 2,25 mg/L
PNEC sediment, freshwater: 0,178 mg/kg
PNEC sediment, marine water: 0,0178 mg/kg
PNEC, soil: 0,015 mg/kg
PNEC sewage treatment plant (STP): 2476 mg/L

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

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. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). 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**

Appearance:	
Physical state:	**Liquid**
Colour:	**refer to label**
Odour:	**characteristic**
Odour threshold:	**not applicable**
pH at 20 °C:	**not applicable**
Melting point/freezing point:	**not applicable**
Initial boiling point and boiling range:	**116 °C** Source: butan-1-ol
Flash point:	**25 °C** Method: DIN 53213
Evaporation rate:	**not applicable**
flammability	
Burning time:	**not applicable**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**1.05 Vol-%**
Upper explosion limit:	**13 Vol-%** Source: benzyl alcohol
Vapour pressure at 20 °C:	**1.44 mbar**
Vapour density:	**not applicable**
Relative density:	
Density at 20 °C:	**1.27 g/cm³**
Solubility(ies):	
Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**360 °C** Source: butan-1-ol
Decomposition temperature:	**not applicable**
Viscosity at 20 °C:	**115 s 6 mm** Method: DIN 53211
Explosive properties:	**not applicable**
Oxidising properties:	**not applicable**

9.2. **Other information**

Solid content: **65 weight-%**

solvent content:
Organic solvents: **35 weight-%**
Water: **0 weight-%**

Solvent separation test: **< 3 weight-% (ADR/RID)**

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

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

11.1. **Information on toxicological effects**

Acute toxicity

Xylene
oral, LD50, Rat: 4300 mg/kg
dermal, LD50, Rabbit: 2000 mg/kg
oral, LD50, Rat, male: 5,523 mg/kg
Method: EU Test B.1
Algae toxicity, EC50, Pseudokirchneriella subcapitata: 2,2 mg/L (73 h)
Method: OECD 201
inhalative (vapours), LC50, Rat, male: 6700 ppm (4 h)

ethylbenzene
oral, LD50, Rat: 3,5 mg/kg
dermal, LD50, Rabbit: 15,4 mg/kg

butan-1-ol
oral, LD50, Rat: 2292 mg/kg
Method: OECD 401
Harmful if swallowed.
dermal, LD50, Rabbit: 3430 mg/kg
Method: OECD 402

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

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye damage.

ethylbenzene

Skin, Rabbit (24 h)
Causes mild skin irritation.
eyes, Rabbit
Causes slight eye irritation

butan-1-ol
Skin, Rabbit (4 h)
Method: BASF - Test
eyes

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

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

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

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

ethylbenzene
Germ cell mutagenicity; Evaluation negative
Hamster; Mouse; ovaries
Carcinogenicity; Evaluation Carc. Cat. 2
Method: Group II B (IARC): Possible carcinogenic to humans (ethylbenzene)
human

butan-1-ol
teratogenicity, oral
Method: NOAEL
Rat; 1.454 mg/kg; Toxicological effects in dams
teratogenicity, oral
Method: NOAEL
Rat; 5.654 mg/kg
teratogenicity, inhalative
Method: NOAEL
Rat; 10.8 mg/l; Toxicological effects in dams
teratogenicity, inhalative
Method: NOAEL
Rat; 24.7 mg/l
Reproductive toxicity, inhalative
Method: NOAEL
Rat; 18.5 mg/l; parents
Reproductive toxicity, inhalative
Method: NOAEL
Mouse; 18.5 mg/l; F1

benzyl alcohol
Germ cell mutagenicity; Evaluation negative
Method: OECD 471 (Ames test)
OECD 474
Carcinogenicity
No data available
Reproductive toxicity
No data available

STOT-single exposure; STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Xylene
Specific target organ toxicity (repeated exposure)
Liver and kidney damage; central nervous system
Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Liver and kidney damage; central nervous system; hearing organs

ethylbenzene
Repeated dose toxicity, Rat: 75 mg/kg
Method OECD 407
RTECS-no.:; DA0700000
depression of central nervous system
movement disorders; headache; Vomiting

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

Aspiration hazard

butan-1-ol
Aspiration hazard

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

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.

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**

Xylene
Fish toxicity, LC50, fish: 2,6 mg/L (96 h)
Method: OECD 203
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)
Method: OECD 201
Algae toxicity, LC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)
Method: OECD 201
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout) (96 h)
Method: OECD 203
Daphnia toxicity, IC50, Daphnia magna: 1 mg/L (24 h)
Method: OECD 202
Algae toxicity, LC50, Selenastrum capricornutum: 2,2 mg/L (73 h)
Method: OECD 201
Bacteria toxicity, NOEC, Activated sludge: 16 mg/L (28 d)
Method: OECD 301 F

ethylbenzene
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 4,2 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna 1,8 - 2,4 mg/L (48 h)
Algae toxicity, EC50, Skeletonema costatum: 4,9 mg/L (72 h)

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 7,2 mg/L (48 h)
Shellfish Toxicity, LC50, Mysidopsis bahia: > 5,2 mg/L (48 h)
Toxicity of Microoganisms, EC50, microorganisms: 96 mg/L (24 h)

butan-1-ol
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 1376 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1328 mg/L (48 h)
Method: OECD 202
Algae, EC50, Selenastrum capricornutum: 225 mg/L (96 h)
Method: OECD 201
literature value
Bacteria toxicity, EC10, Pseudomonas putida: 2476 mg/L (17 h)
Method: DIN 38412

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)
Algae, EC50, Algae: 2,6 mg/L (72 h)
Fish toxicity, LC50, Lepomis macrochirus (Bluegill): 10 ppm (96 h)
Algae toxicity, NOEC, Skeletonema costatum: 0,027 mg/L (72 h)

Long-term Ecotoxicity

Xylene
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,36 mg/L (73 h)
Method: OECD 201
Fish toxicity, NOEC, fish: > 1,3 mg/L (56 d)
Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/L (21 d)
Method: OECD 211
Daphnia toxicity, NOEC, Daphnia pulex: 1,17 mg/L (7 d)
Method: US EPA 600/4-91-003
Daphnia toxicity, LOEC:, Daphnia magna (Big water flea): 3,16 mg/L (21 d)
Method: OECD 211
Algae toxicity, growth test (Eb-Cx) 10%“ , Pseudokirchneriella subcapitata: 0,72 mg/L (73 h)
Method: OECD 201
Daphnia toxicity, growth test (Eb-Cx) 10%“ , Daphnia magna: 1,91 mg/L (21 d)
Method: OECD 211

ethylbenzene
Daphnia toxicity, NOEC, Ceriodaphnia dubia (Wasserfloh): 0,96 mg/L (7 d)
Algae toxicity, NOEC, Pseudokirchneriella subcapitata: 3,4 mg/L (96 h)
Daphnia toxicity, LC50, Ceriodaphnia dubia (Wasserfloh): 3,6 mg/L (7 d)
Bacteria toxicity, EC50, Nitrosomonas sp: 96 mg/L (24 h)
Daphnia toxicity, LOEC:, Ceriodaphnia dubia (Wasserfloh): 1,7 mg/L (7 d)

butan-1-ol
Daphnia toxicity, NOEL, Daphnia magna (Big water flea): 4,1 mg/L (21 d)
Method: OECD 211

12.2. **Persistence and degradability**

Xylene
Persistence and degradability:
Method: Rapid photochemical oxidation in air
Biodegradation: 98 percent (28 d)
Readily biodegradable (according to OECD criteria)

ethylbenzene
Biodegradation, aerobic: 70 - 80 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

butan-1-ol
Biodegradation: 92 percent (20 d); Evaluation Readily biodegradable (according to OECD criteria)
aerobic.; Activated sludge; Biochemical oxygen demand

benzyl alcohol
Biodegradation: 92 - 96 percent (14 d)
Method: OECD 301C

Readily biodegradable (according to OECD criteria)

12.3. **Bioaccumulative potential**

Xylene
Distribution coefficient n-octanol/water (log KOW): 3,49

ethylbenzene
Distribution coefficient n-octanol/water (log KOW): 3,6

butan-1-ol
Partition coefficient: n-octanol/water:
Bioaccumulation is not to be expected.
Distribution coefficient n-octanol/water (log KOW): 0,88

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.

Bioconcentration factor (BCF)

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

12.4. **Mobility in soil**

Xylene
soil: Evaluation Absorbs slowly into the soil
Water: Evaluation Floats on the water

butan-1-ol
Mobility in soil:
The substance does not evaporate from the water surface into the atmosphere.; Does not adsorb to the ground.

benzyl alcohol
soil:
No further relevant information 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. **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.

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**

UN 1263

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Paint
Sea transport (IMDG):	PAINT
Air transport (ICAO-TI / IATA-DGR):	Paint

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

Land transport (ADR/RID):	KEINE GÜTER DER KLASSE 3 bei Gebinden > 450 l Klasse 3
Sea transport (IMDG)	3

for packages < 30 litres: Transport in accordance with 2.3.2.5 of the IMDG Code.
Air transport (ICAO-TI / IATA-DGR) 3

14.4. **Packing group**

III

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-E

14.7. **Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

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): 449

National regulations

Restrictions of occupation
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

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.
215-535-7 1330-20-7	Xylene	01-2119488216-32
202-859-9 100-51-6	benzyl alcohol	01-2119492630-38
200-751-6 71-36-3	butan-1-ol	01-2119484630-38
202-849-4 100-41-4	ethylbenzene	01-2119489370-35
605-296-0 162627-17-0	Fatty acids, C18-unsaturated, dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine	01-2119970640-38

SECTION 16: Other information

Full text of classification in section 3

Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Resp. Sens. 1 / H334	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all

		organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.

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.
Skin Irrit. 2	Skin corrosion/irritation	Calculation method.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
Resp. Sens. 1	Respiratory or skin sensitisation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
STOT RE 2	STOT-repeated exposure	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.