

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

VFL
Vismara Farbladen

Article No.: 2500
Print date: 09.02.2021
Version: 5

Hardener A-2604
Revision date: 30.07.2020
Issue date: 30.07.2020

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

1.1. **product identifiers**

Article No. (manufacturer/supplier) 2500
Trade name/designation Hardener A-2604
for 2K-ECLON EP zinc / ECLAPOX primer

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

Relevant identified uses:

Coating material to protect surfaces

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

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.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
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.
H335 May cause respiratory irritation.
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.
P280 Wear protective gloves and eye/face protection.
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.
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.

Hazard components for labelling

butan-1-ol

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Xylene

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-%
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	25 - 50
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	5 - 10
202-013-9 90-72-2 603-069-00-0	01-2119560597-27 2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4 H302 / Eye Irrit. 2 H319 / Skin Irrit. 2 H315	2.5 - 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

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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:

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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

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

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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

2,4,6-tris(dimethylaminomethyl)phenol

Index No. 603-069-00-0 / EC No. 202-013-9 / CAS No. 90-72-2

PNEC aquatic, freshwater: 0,084 mg/L
PNEC aquatic, marine water: 0,008 mg/L
PNEC sewage treatment plant (STP): 0,2 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

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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:	0.93 Vol-%
Upper explosion limit:	11.3 Vol-% Source: butan-1-ol
Vapour pressure at 20 °C:	3.04 mbar
Vapour density:	not applicable
Relative density:	
Density at 20 °C:	0.92 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:	60 s 6 mm Method: DIN 53211
Explosive properties:	not applicable
Oxidising properties:	not applicable
9.2. Other information	
Solid content:	61 weight-%
solvent content:	
Organic solvents:	39 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

- Classification according to Regulation (EC) No 1272/2008 [CLP]
- 11.1. **Information on toxicological effects** *
- Acute toxicity**

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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

2,4,6-tris(dimethylaminomethyl)phenol

oral, LD50, Rat: 500 mg/kg

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

2,4,6-tris(dimethylaminomethyl)phenol

Skin (4 h)
Causes severe burns.
eyes
Causes serious eye damage.

Respiratory or skin sensitisation

2,4,6-tris(dimethylaminomethyl)phenol

Respiratory system: ; Evaluation Not to be classified as an inhalation or skin allergen.

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

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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

2,4,6-tris(dimethylaminomethyl)phenol

Germ cell mutagenicity; Evaluation Not to be classified as germ cell mutagen (mutagen).
Carcinogenicity; Evaluation Does not qualify as a carcinogen.
Reproductive toxicity; Evaluation Not to be classified as toxic to reproduction.

STOT-single exposure; STOT-repeated exposure

May cause respiratory irritation.

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

2,4,6-tris(dimethylaminomethyl)phenol

Specific target organ toxicity (single exposure) Evaluation Not to be classified as specific target organ toxic (single exposure).
Specific target organ toxicity (repeated exposure) Evaluation Not to be classified as specific target organ toxic (repeated exposure).

Aspiration hazard

butan-1-ol

Aspiration hazard

2,4,6-tris(dimethylaminomethyl)phenol

Aspiration hazard; Evaluation Not to be classified as aspirational.

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)

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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 Microorganisms, 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

2,4,6-tris(dimethylaminomethyl)phenol

Algae toxicity, ErC50: 84 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)

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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

2,4,6-tris(dimethylaminomethyl)phenol

Biodegradation: 4 percent (28 d)

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

2,4,6-tris(dimethylaminomethyl)phenol

Distribution coefficient n-octanol/water (log KOW): -0,66 ; Evaluation Does not significantly accumulate in organisms.

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.

2,4,6-tris(dimethylaminomethyl)phenol

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. 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

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number

UN 2733

*

14.2. UN proper shipping name

Land transport (ADR/RID):

Amines, flammable, corrosive, n.o.s.

(XYLENE, MIXTURE, 2,4,6-Tris(dimethylaminomethyl)

Sea transport (IMDG):

AMINES, FLAMMABLE, CORROSIVE, N.O.S.

(XYLENE, MIXTURE, 2,4,6-Tris(dimethylaminomethyl)

*

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Air transport (ICAO-TI / IATA-DGR):	Amines, flammable, corrosive, n.o.s. (XYLENE, MIXTURE, 2,4,6-Tris(dimethylaminomethyl)	
14.3. Transport hazard class(es)	3 (8)	*
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-C	
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): 358

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
200-751-6 71-36-3	butan-1-ol	01-2119484630-38
202-849-4 100-41-4	ethylbenzene	01-2119489370-35
202-013-9 90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	01-2119560597-27

SECTION 16: Other information

Full text of classification in section 3

Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
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

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Asp. Tox. 1 / H304	Aspiration hazard	exposure cause the hazard).
Flam. Liq. 3 / H226	Flammable liquids	May be fatal if swallowed and enters airways.
Acute Tox. 4 / H302	Acute toxicity (oral)	Flammable liquid and vapour.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Harmful if swallowed.
STOT SE 3 / H336	STOT-single exposure	Causes serious eye damage.
Flam. Liq. 2 / H225	Flammable liquids	May cause drowsiness or dizziness.
		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.
STOT SE 3	STOT-single exposure	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.

* Data changed compared with the previous version