**Rudolf Hensel GmbH**
**21039 Börnsen**



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

### 1.1 Product identifier

**HENSOGRUND 2K HÄRTER**

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

#### 1.2.1 Relevant uses

Primer

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

**Company**

Rudolf Hensel GmbH
Lauenburger Landstr. 11
21039 Börnsen / GERMANY
Phone +49 (0)40-72 10 62 10
Fax +49 (0)40-72 10 62 52
Homepage www.rudolf-hensel.de
E-mail info@rudolf-hensel.de

**Address enquiries to**

**Technical information** info@rudolf-hensel.de

**Safety Data Sheet** sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

**Company** +49 (0)40-72 10 62 10 (7:00 - 17:00) 0172 4115390 (17:00 - 07:00)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Flam. Liq. 3: H226 Flammable liquid and vapour.
Skin Corr. 1: H314 Causes severe skin burns and eye damage.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Eye Dam. 1: H318 Causes serious eye damage.
STOT SE 3: H335 May cause respiratory irritation.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 1: H400 Very toxic to aquatic life.
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

**Hazard pictograms**

**Signal word** DANGER

**Contains:** Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine

Xylene, mixture of isomers

2-Methylpropan-1-ol

2,4,6-tris(dimethylaminomethyl)phenol

3-Aminopropyldimethylamine

Butan-1-ol

Triethylenetetramine

N-[3-(Trimethoxysilyl)propyl]ethylenediamine

**Hazard statements**
H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours / spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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 / doctor.
P312 Call a POISON CENTER / doctor if you feel unwell.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/national regulation.

**2004/42/CE** < 500 g/l II A j SB Two-pack reactive performance coatings (max. 500 g/l)

### 2.3 Other hazards

**Human health dangers** If swallowed or in the event of vomiting, risk of product entering the lungs.
Contains no ingredients with endocrine-disrupting properties.

**Environmental hazards** Does not contain any PBT or vPvB substances.

**Other hazards** Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

**not applicable**

### 3.2 Mixtures

**The product is a mixture.**

| Range [%] | Substance |
|---|---|
| 20 - <35 | Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine |
| | CAS: 186321-96-0, EINECS/ELINCS: 606-078-8, Reg-No.: 01-2119983521-35-XXXX |
| | GHS/CLP: Eye Dam. 1: H318 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410 |
| 10 - <20 | Xylene, mixture of isomers |
| | CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX |
| | GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H312 H332 - Skin Irrit. 2: H315 - STOT RE 2: H373 - Asp. Tox. 1: H304 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Aquatic Chronic 3: H412 |
| 10 - <15 | 2-Methylpropan-1-ol |
| | CAS: 78-83-1, EINECS/ELINCS: 201-148-0, EU-INDEX: 603-108-00-1, Reg-No.: 01-2119484609-23-XXXX |
| | GHS/CLP: Flam. Liq. 3: H226 - Skin Irrit. 2: H315 - Eye Dam. 1: H318 - STOT SE 3: H335 - STOT SE 3: H336 |
| 5 - <10 | Benzyl alcohol |
| | CAS: 100-51-6, EINECS/ELINCS: 202-859-9, EU-INDEX: 603-057-00-5, Reg-No.: 01-2119492630-38-XXXX |
| | GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 4: H332 - Eye Irrit. 2: H319 |
| 1 - <5 | Ethylbenzene |
| | CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4 |
| | GHS/CLP: Flam. Liq. 2: H225 - STOT RE 2: H373 - Asp. Tox. 1: H304 - Aquatic Chronic 3: H412 - Acute Tox. 4: H332 |
| 1 - <3 | 2,4,6-tris(dimethylaminomethyl)phenol |
| | CAS: 90-72-2, EINECS/ELINCS: 202-013-9, EU-INDEX: 603-069-00-0, Reg-No.: 01-2119560597-27-XXXX |
| | GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1C: H314 - Eye Dam. 1: H318 |
| 1 - <3 | 3-Aminopropyldimethylamine |
| | CAS: 109-55-7, EINECS/ELINCS: 203-680-9, EU-INDEX: 612-061-00-6 |
| | GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H302 - Skin Corr. 1B: H314 - Skin Sens. 1: H317 |
| 1 - <3 | Butan-1-ol |
| | CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX |
| | GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H302 - Eye Dam. 1: H318 - STOT SE 3: H336 - Skin Irrit. 2: H315 - STOT SE 3: H335 |
| 1 - <3 | Triethylenetetramine |
| | CAS: 112-24-3, EINECS/ELINCS: 203-950-6, EU-INDEX: 612-059-00-5 |
| | GHS/CLP: Aquatic Chronic 3: H412 - Skin Sens. 1: H317 - Skin Corr. 1B: H314 - Acute Tox. 4: H312 |
| 0,1 - <0,5 | N-[3-(Trimethoxysilyl)propyl]ethylenediamine |
| | CAS: 1760-24-3, EINECS/ELINCS: 217-164-6, Reg-No.: 01-2119970215-39-XXXX |
| | GHS/CLP: Eye Dam. 1: H318 - Skin Sens. 1: H317 - STOT SE 3: H335 - STOT RE 2: H373 |

**Comment on component parts** For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information** Take off contaminated clothing and wash before reuse.

**Inhalation** Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

**Skin contact** In case of contact with skin wash off immediately with soap and water.
Seek medical advice immediately.

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

**Ingestion** Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.
Consult a doctor immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
Allergic reactions
Difficulty of breathing
Headache
Vertigo
If swallowed or in the event of vomiting, risk of product entering the lungs.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

Water spray jet.
Carbon dioxide.
Foam.
Dry powder.

**Extinguishing media that must not be used**

Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use breathing apparatus if exposed to vapours/aerosol.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

### 6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand).
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide good room ventilation even at ground level (vapours are heavier than air).
Provide suitable vacuuming at the processing area.
Use solvent-resistant equipment.

Vapours can form an explosive mixture with air.
Take precautionary measures against static discharges.
Keep away from all sources of ignition - Refrain from smoking.
Use explosion-proofed equipment/fittings and non-sparkling tools.
Ignitable mixtures can be formed in the empty container.

Do not eat, drink, smoke or take drugs at work.
Take off contaminated clothing and wash before reuse.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.

### 7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Keep only in original container.

Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Keep container tightly closed.
Keep container in a well-ventilated place.
Protect from heat/overheating.

**torage class (TRGS 510)** Storage class 3 (TRGS 510)

### 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

**Ingredients with occupational exposure limits to be monitored DE (TRGS 900)**

| Substance |
|---|
| Benzyl alcohol |
| CAS: 100-51-6, EINECS/ELINCS: 202-859-9, EU-INDEX: 603-057-00-5, Reg-No.: 01-2119492630-38-XXXX |
| Exposure limit: 5 ppm, 22 mg/m³, DFG, H, Y,11 |
| Factor: 2 (I) |
| Xylene, mixture of isomers |
| CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX |
| Exposure limit: 50 ppm, 220 mg/m³, DFG, EU, H |
| Factor: 2(II) |
| 2-Methylpropan-1-ol |
| CAS: 78-83-1, EINECS/ELINCS: 201-148-0, EU-INDEX: 603-108-00-1, Reg-No.: 01-2119484609-23-XXXX |
| Exposure limit: 100 ppm, 310 mg/m³, Y, DFG |
| Factor: 1(I) |
| Ethylbenzene |
| CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4 |
| Exposure limit: 20 ppm, 88 mg/m³, H, Y, DFG |
| Factor: 2(II) |
| Butan-1-ol |
| CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX |
| Exposure limit: 100 ppm, 310 mg/m³, Y, BAT, DFG |
| Factor: 1(I) |

**Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)**

| Substance / EC LIMIT VALUES |
|---|
| Xylene, mixture of isomers |
| CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX |
| Eight hours: 50 ppm, 221 mg/m³, H |
| Short-term (15-minute): 100 ppm, 442 mg/m³ |
| Ethylbenzene |
| CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4 |
| Eight hours: 100 ppm, 442 mg/m³, H |
| Short-term (15-minute): 200 ppm, 884 mg/m³ |

**DNEL**

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| Industrial, inhalative, Long-term - systemic effects, 0,53 mg/m³ |
| Industrial, inhalative, Acute - systemic effects, 2,1 mg/m³ |
| Industrial, dermal, Long-term - systemic effects, 0,15 mg/kg bw/day |
| Industrial, dermal, Acute - systemic effects, 0,6 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 0,13 mg/m³ |
| general population, inhalative, Acute - systemic effects, 0,13 mg/m³ |
| general population, dermal, Long-term - systemic effects, 0,075 mg/kg bw/day |
| general population, dermal, Acute - systemic effects, 0,075 mg/kg bw/day |

| |
|---|
| general population, oral, Long-term - systemic effects, 0,075 mg/kg bw/day |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| Industrial, inhalative, Long-term - systemic effects, 221 mg/m³ |
| Industrial, inhalative, Acute - systemic effects, 442 mg/m³ |
| Industrial, inhalative, Long-term - local effects, 221 mg/m³ |
| Industrial, dermal, Long-term - systemic effects, 212 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 65,3 mg/m³ |
| general population, inhalative, Acute - systemic effects, 260 mg/m³ |
| general population, inhalative, Long-term - local effects, 65,3 mg/m³ |
| general population, inhalative, Acute - local effects, 260 mg/m³ |
| general population, dermal, Long-term - systemic effects, 125 mg/kg bw/day |
| general population, oral, Long-term - systemic effects, 5 mg/kg bw/day |
| Butan-1-ol, CAS: 71-36-3 |
| Industrial, inhalative (vapor), Long-term - local effects, 310 mg/m³ |
| general population, inhalative (vapor), Long-term - local effects, 155 mg/m³ |
| general population, inhalative (vapor), Long-term - systemic effects, 55,357 mg/m³ |
| general population, dermal, Long-term - systemic effects, 3,125 mg/kg bw/day |
| general population, oral, Long-term - systemic effects, 1,562 mg/kg bw/day |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| Industrial, inhalative, Long-term - systemic effects, 260 mg/m³ |
| Industrial, inhalative, Acute - systemic effects, 260 mg/m³ |
| Industrial, inhalative, Long-term - local effects, 600 µg/m³ |
| Industrial, inhalative, Acute - local effects, 5,36 µg/m³ |
| general population, inhalative, Long-term - systemic effects, 50 mg/m³ |
| general population, inhalative, Acute - systemic effects, 50 mg/m³ |
| general population, oral, Long-term - systemic effects, 8 mg/kg bw/day |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| Industrial, inhalative, Long-term - local effects, 310 mg/m³ |
| general population, inhalative, Long-term - local effects, 55 mg/m³ |
| Benzyl alcohol, CAS: 100-51-6 |
| Industrial, inhalative, Long-term - systemic effects, 22 mg/m³ |
| Industrial, inhalative, Acute - systemic effects, 110 mg/m³ |
| Industrial, dermal, Long-term - systemic effects, 8 mg/kg bw/day |
| Industrial, dermal, Acute - systemic effects, 40 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 5,4 mg/m³ |
| general population, inhalative, Acute - systemic effects, 27 mg/m³ |
| general population, oral, Long-term - systemic effects, 4 mg/kg bw/day |
| general population, oral, Acute - systemic effects, 20 mg/kg bw/day |
| general population, dermal, Acute - systemic effects, 20 mg/kg bw/day |
| general population, dermal, Long-term - systemic effects, 4 mg/kg bw/day |
| Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine, CAS: 186321-96-0 |
| Industrial, inhalative, Long-term - systemic effects, 7,05 mg/m³ |
| Industrial, dermal, Long-term - systemic effects, 1 mg/kg bw/day |
| general population, dermal, Long-term - systemic effects, 0,5 mg/kg bw/day |
| general population, oral, Long-term - systemic effects, 0,5 mg/kg bw/day |
| general population, inhalative, Long-term - systemic effects, 1,74 mg/m³ |

**PNEC**

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| freshwater, 0,046 mg/L |
| seawater, 0,005 mg/L |
| sewage treatment plants (STP), 0,2 mg/L |
| sediment (freshwater), 0,262 mg/kg sediment dw |
| sediment (seawater), 0,026 mg/kg sediment dw |
| soil, 0,025 mg/kg soil dw |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| freshwater, 0,044 mg/L |
| seawater, 0,004 mg/L |
| sewage treatment plants (STP), 1,6 mg/L |
| sediment (freshwater), 2,52 mg/kg sediment dw |
| sediment (seawater), 0,252 mg/kg sediment dw |
| soil, 0,852 mg/kg soil dw |
| Butan-1-ol, CAS: 71-36-3 |
| freshwater, 0,082 mg/l |
| seawater, 0,008 mg/l |
| sewage treatment plants (STP), 2476 mg/l |
| sediment (freshwater), 0,324 mg/kg |
| sediment (seawater), 0,032 mg/kg |
| soil, 0,017 mg/kg |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| freshwater, 0.062 mg/L (AF= 50) |
| seawater, 0.006 mg/L (AF= 500) |
| sewage treatment plants (STP), 25 mg/L |
| sediment (freshwater), 0.22 mg/kg dw |
| sediment (seawater), 0.022 mg/kg dw |
| soil, 0.009 mg/kg dw |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| freshwater, 0,4 mg/l |
| seawater, 0,04 mg/l |
| sewage treatment plants (STP), 10 mg/l |
| sediment (freshwater), 1,56 mg/kg sediment dw |
| sediment (seawater), 0,156 mg/kg sediment dw |
| soil, 0.076 mg/kg soil dw |
| Benzyl alcohol, CAS: 100-51-6 |
| freshwater, 1 mg/L |
| seawater, 0,1 mg/L |
| sediment (freshwater), 5,27 mg/kg |
| sediment (seawater), 0,527 mg/kg |
| soil, 0,456 mg/L |
| sewage treatment plants (STP), 39 mg/L |
| Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine, CAS: 186321-96-0 |
| freshwater, 0,186 ug/L |
| seawater, 0,019 ug/L |
| sewage treatment plants (STP), 1,58 mg/L |

| |
|---|
| sediment (freshwater), 5 ug/kg |
| sediment (seawater), 0,5 ug/kg |
| soil, 11,1 mg/kg |

## 8.2 Exposure controls

| | |
|---|---|
| **Additional advice on system design** | Ensure adequate ventilation on workstation.<br>Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. |
| **Eye protection** | Safety glasses. (EN 166:2001) |
| **Hand protection** | For short-term contact:<br>0,4 mm Nitrile rubber, >480 min (EN 374-1/-2/-3).<br>0,4 mm Butyl rubber, >480 min (EN 374-1/-2/-3).<br>In full contact:<br>0,4 mm Fluoro rubber, >480 min (EN 374-1/-2/-3).<br>The details concerned are recommendations. Please contact the glove supplier for further information. |
| **Skin protection** | Solvent-resistant protective clothing (EN 340) |
| **Other** | Avoid contact with eyes and skin.<br>Do not inhale gases/vapours/aerosols.<br>Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. |
| **Respiratory protection** | In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.<br>Short term: filter apparatus, combination filter A-P2. (DIN EN 14387) |
| **Thermal hazards** | none |
| **Delimitation and monitoring of the environmental exposition** | Protect the environment by applying appropriate control measures to prevent or limit emissions. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Physical state** | liquid |
| **Form** | liquid |
| **Color** | transparent |
| **Odor** | amine-like |
| **Odour threshold** | not determined |
| **pH-value** | not applicable |
| **pH-value [1%]** | not applicable |
| **Boiling point or initial boiling point and boiling range [°C]** | >120 |
| **Flash point [°C]** | 24 (ISO 3679:2015) |
| **Flammability** | yes |
| **Lower explosion limit** | 0,8 Vol.-% |
| **Upper explosion limit** | 12 Vol.-% |
| **Oxidising properties** | no |
| **Vapour pressure/gas pressure [kPa]** | ca. 4,4 (50°C) |
| **Density [g/cm³]** | 0,9 - 1 (20 °C / 68,0 °F) |
| **Relative density** | not determined |
| **Bulk density [kg/m³]** | not applicable |
| **Solubility in water** | insoluble |
| **Solubility other solvents** | No information available. |
| **Partition coefficient n-octanol/water (log value)** | not determined |
| **Kinematic viscosity** | No information available. |
| **Relative vapour density** | not determined |
| **Melting point [°C]** | not determined |
| **Auto-ignition temperature [°C]** | >200 |
| **Decomposition temperature [°C]** | not applicable |
| **Particle characteristics** | not relevant |

### 9.2 Other information

Solvent-separation test: <3 %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Reactions with strong oxidizing agents, strong acids and alkalis.
Uncleaned empty vessels may contain product gases which can form explosive mixtures with air.

### 10.4 Conditions to avoid

See SECTION 7

### 10.5 Incompatible materials

Strong basic compounds
Strong oxidizing agent.
Strong acids.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

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

**Acute oral toxicity**

| Product |
|---|
| ATE-mix, oral, > 2000 mg/kg |

| Substance |
|---|
| 3-Aminopropyldimethylamine, CAS: 109-55-7 |
| LD50, oral, Rat, 1640 mg/kg |
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| LD50, oral, Rat, 2169 mg/kg OECD TG 401 |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| LD50, oral, Rat, 3523 mg/kg |
| Triethylenetetramine, CAS: 112-24-3 |
| LD50, oral, Rat, 1716 mg/kg |
| Butan-1-ol, CAS: 71-36-3 |
| LD50, oral, Rat (female), 2292 mg/kg bw, OECD 401 |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| LD50, oral, Rat, 2295 mg/kg bw |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| LD50, oral, Rat, 3350 mg/kg bw |
| Ethylbenzene, CAS: 100-41-4 |
| LD50, oral, Rat, 3500 mg/kg |
| Benzyl alcohol, CAS: 100-51-6 |
| LD50, oral, Rat, 1230 - 1620 mg/kg |
| Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine, CAS: 186321-96-0 |
| LD50, oral, Rat, > 2000 mg/kg |

**Acute dermal toxicity**

| Product |
|---|
| ATE-mix, dermal, > 2000 mg/kg |

| Substance |
|---|
| 3-Aminopropyldimethylamine, CAS: 109-55-7 |
| LD50, dermal, Rabbit, 490 mg/kg |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| LD50, dermal, Rabbit, 12126 mg/kg |
| Triethylenetetramine, CAS: 112-24-3 |
| LD50, dermal, Rabbit, 1465 mg/kg |
| Butan-1-ol, CAS: 71-36-3 |
| LD50, dermal, Rabbit, 3400 mg/kg |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| LD50, dermal, Rabbit, >2000 mg/kg bw |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| LD50, dermal, Rabbit, 2460 mg/kg bw |
| Ethylbenzene, CAS: 100-41-4 |
| LD50, dermal, Rabbit, 15354 mg/kg |

| |
|---|
| Benzyl alcohol, CAS: 100-51-6 |
| LD50, dermal, Rabbit, > 2000 mg/kg |
| Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine, CAS: 186321-96-0 |
| LD50, dermal, Rat, > 2000 mg/kg |

**Acute inhalational toxicity**

| |
|---|
| Product |
| ATE-mix, inhalation (vapour ), > 20 mg/l 4h |

| |
|---|
| Substance |
| 3-Aminopropyldimethylamine, CAS: 109-55-7 |
| LC50, inhalative, Rat, > 4,31 mg/l/4h |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| LC50, inhalative, Rat, 27,12 mg/l (4 h) |
| Butan-1-ol, CAS: 71-36-3 |
| LC50, inhalative, Rat, > 17,76 mg/l (4 h) |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| LC50, inhalative, Rat, 1,49 -2,44 mg/L, 4h |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| LC50, inhalative, Rat, > 18,18 mg/l 6h |
| Ethylbenzene, CAS: 100-41-4 |
| LC50, inhalation (vapour ), Rat, 17,2 mg/l |
| Benzyl alcohol, CAS: 100-51-6 |
| LC50, inhalative, Rat, > 4,178 mg/L (4h) (OECD 403) |

**Serious eye damage/irritation**

Risk of serious damage to eyes.
Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Calculation method

| |
|---|
| Substance |
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| Eye, corrosive |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| Eye, Rabbit, In vivo study, irritant |
| Butan-1-ol, CAS: 71-36-3 |
| Eye, Rabbit, OECD 405, corrosive |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| Rabbit, OECD 405, corrosive |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| Eye, Rabbit, OECD 405, irritant |
| Benzyl alcohol, CAS: 100-51-6 |
| Eye, irritant |

**Skin corrosion/irritation**

Product is caustic.
Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Calculation method

| |
|---|
| Substance |
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |

| |
|---|
| dermal, corrosive |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| dermal, Rabbit, In vivo study, irritant |
| Butan-1-ol, CAS: 71-36-3 |
| dermal, Rabbit, irritant |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| dermal, Rabbit, OECD 404, irritant |
| Benzyl alcohol, CAS: 100-51-6 |
| dermal, non-irritating |

**Respiratory or skin sensitisation**

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
May cause an allergic skin reaction.
Calculation method

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| dermal, non-sensitizing |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| mouse, OECD 429, non-sensitizing |
| Butan-1-ol, CAS: 71-36-3 |
| dermal, Mouse (female), OECD 429, non-sensitizing |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| dermal, Guinea pig, OECD 406, sensitising |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| non-sensitizing, QSAR, |
| Benzyl alcohol, CAS: 100-51-6 |
| dermal, non-sensitizing |

**Specific target organ toxicity — single exposure**

May cause respiratory irritation.
Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Calculation method

| Substance |
|---|
| Benzyl alcohol, CAS: 100-51-6 |
| inhalative, non-irritating |

**Specific target organ toxicity — repeated exposure**

May cause damage to organs through prolonged or repeated exposure.
Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Calculation method

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| NOAEL, oral, Rat, 15 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification. |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| NOAEL, oral, Rat, 250 mg/kg bw/day |
| NOAEC, inhalative, Rat, 3515 mg/m³ |
| Butan-1-ol, CAS: 71-36-3 |
| NOAEL, oral, Rat, 125 mg/kg bw/day, no adverse effect observed |
| NOAEC, inhalative, Rat, 1500 mg/m³, no adverse effect observed |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| NOAEC, inhalative, Rat, 15 mg/m³, OECD 422 |

| |
|---|
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| NOAEL, oral, Rat, 1450 mg/kg bw/day, OECD 408, no adverse effect observed |
| NOAEC, inhalative, Rat, 7500 mg/m³, In vivo study, no adverse effect observed |
| Benzyl alcohol, CAS: 100-51-6 |
| NOAEL, oral, Rat, 400 mg/kg bw/day (chronic), The effects observed are not sufficient for classification. |
| NOAEC, inhalative, Rat, 1072 mg/m³ (subacute), no adverse effect observed |

**Mutagenicity**

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| in vitro, no adverse effect observed |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| subkutane, mouse, OECD 478, negativ |
| Butan-1-ol, CAS: 71-36-3 |
| in vitro, OECD 476, negativ |
| in vivo, OECD 474, negativ |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| Ames-test, negativ |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| In vitro study, negativ, mammalian cell gene mutation assay, |
| Benzyl alcohol, CAS: 100-51-6 |
| in vitro, negativ |
| in vivo, negativ |

**Reproduction toxicity**

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

**- Fertility**

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| NOAEL, Rat, 150 mg/kg bw/day (subchronic), no adverse effect observed |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| NOAEC, inhalative, Rat, 2171 mg/m³, In vivo study, negativ |
| Butan-1-ol, CAS: 71-36-3 |
| NOAEL, oral, Rat, 500 mg/kg bw/day, no adverse effect observed |
| NOAEL, oral, Rat, 1454 mg/kg bw/day, OECD 414, adverse effect observed |
| NOAEC, inhalative, Rat, 6189 mg/m³, no adverse effect observed |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| NOAEL, oral, Rat, 750 mg/kg bw/day, OECD 422 |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| NOAEC, inhalative, Rat, 7500 mg/m³, In vivo study, no adverse effect observed |

**- Development**

| Substance |
|---|
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| NOAEL, Rat, 150 mg/kg bw/day (subchronic), no adverse effect observed |
| Xylene, mixture of isomers, CAS: 1330-20-7 |

| |
|---|
| NOAEC, inhalative, Rat, 2171 mg/m³, In vivo study, negativ |
| NOAEC, oral, Rat, 300 mg/kg bw/day, adverse effect observed |
| Butan-1-ol, CAS: 71-36-3 |
| NOAEL, oral, Rat, 1454 mg/kg bw/day, OECD 414, adverse effect observed |
| NOAEL, oral, Rat, 500 mg/kg bw/day, no adverse effect observed |
| NOAEC, inhalative, Rat, 6189 mg/m³, no adverse effect observed |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| NOAEL, oral, Rat, 750 mg/kg bw/day, OECD 422 |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| NOAEC, inhalative, Rat, 10000 mg/m³, OECD 414, no adverse effect observed |

**Carcinogenicity**

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

| Substance |
|---|
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| NOAEL, oral, Rat, 500 mg/kg bw/day |

**Aspiration hazard**

Based on the available information, the classification criteria are not fulfilled.

**General remarks**

none

## 11.2 Information on other hazards

**11.2.1 Endocrine disrupting properties**

Does not contain a relevant substance that meets the classification criteria.

**11.2.2 Other information**

## SECTION 12: Ecological information

### 12.1 Toxicity

| Substance |
|---|
| 3-Aminopropyldimethylamine, CAS: 109-55-7 |
| LC50, (96h), Leuciscus idus, 122 mg/l |
| EC50, (48h), Daphnia magna, 59,5 mg/l |
| IC50, (72h), Algae, 56,2 mg/l |
| 2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2 |
| LC50, (96h), Cyprinus carpio, 175 mg/l |
| EC50, (72h), Desmodesmus subspicatus, 84 mg/l OECD TG 201 |
| NOEC, (72h), Desmodesmus subspicatus, 6,25 mg/l OECD TG 201 |
| Xylene, mixture of isomers, CAS: 1330-20-7 |
| LC50, (96h), Oncorhynchus mykiss, 4,2 mg/L |
| EC50, (72h), Algae, 4,6 mg/L |
| IC50, (24h), Daphnia magna, 2,2 mg/L |
| Triethylenetetramine, CAS: 112-24-3 |
| LC50, (96h), Pimephales promelas, 495 mg/L |
| EC50, (48h), Daphnia magna, 31,1 mg/L |
| ErC50, (72h), Desmodesmus subspicatus, 2,5 mg/L |
| Butan-1-ol, CAS: 71-36-3 |
| LC50, (96h), Leuciscus idus, 1200 mg/l |
| LC50, (96h), Pimephales promelas, 1376 mg/l |
| LC50, (96h), Scenedesmus subspicatus, > 500 mg/l |
| EC50, Pseudomonas putida, 4400 mg/l (17 h) |
| EC50, (48h), Daphnia magna, 1328 mg/l |
| EC50, (72h), Desmodesmus subspicatus, > 500 mg/l |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| LC50, (96h), Danio rerio, 597 mg/l (Lit.) |
| EC50, (48h), Daphnia magna, 81 mg/l (Lit.) |
| EC50, (16h), Pseudomonas putida, 67 mg/l (Lit.) |
| IC50, (72h), Algae, 8,8 mg/l (OECD 201) |
| NOEC, (72h), Algae, 3,1 mg/l (OECD 201) |
| NOEC, (21d), Daphnia magna, > 1 mg/l (Lit.) |
| 2-Methylpropan-1-ol, CAS: 78-83-1 |
| LC50, (96h), Pimephales promelas, 1430 mg/l |
| EC50, (48h), Daphnia pulex, 1100 mg/l |
| NOEC, (21d), Invertebrates, 20 mg/l |
| Ethylbenzene, CAS: 100-41-4 |
| LC50, (96h), fish, 4,2 mg/l |
| EC50, (72h), Algae, 4,6 mg/l |
| EC50, (96h), Algae, 3,6 mg/l |
| EC50, (48h), Daphnia magna, 1,8 mg/l |
| NOEC, (96h), Algae, 1,0 mg/l |
| Benzyl alcohol, CAS: 100-51-6 |
| LC50, (96h), fish, 460 mg/L (OECD 203) |
| EC50, (72h), Algae, 770 mg/L |
| EC50, (48h), Daphnia magna, 230 mg/L (OECD 202) |

| |
|---|
| NOEC, (21d), Daphnia magna, 51 mg/L (OECD 211) |
| Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine, CAS: 186321-96-0 |
| LC50, (96h), Oncorhynchus mykiss, 1,81 mg/L |
| EC50, (48h), Daphnia magna, 0,705 mg/L |

### 12.2 Persistence and degradability

| | |
|---|---|
| **Behaviour in environment compartments** | not determined |
| **Behaviour in sewage plant** | not determined |
| **Biological degradability** | not determined |

### 12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

### 12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

### 12.7 Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product**

| | |
|---|---|
| | Dispose of as hazardous waste.<br>Disposal in an incineration plant in accordance with the regulations of the local authorities. |
| **Waste no. (recommended)** | 080111* |

**Contaminated packaging**

| | |
|---|---|
| | Uncontaminated packaging may be taken for recycling.<br>Packaging that cannot be cleaned should be disposed of as for product. |
| **Waste no. (recommended)** | 150110* packaging containing residues of or contaminated by hazardous substances |

## SECTION 14: Transport information

### 14.1 UN number or ID number

| | |
|---|---|
| **Transport by land according to ADR/RID** | 3469 |
| **Inland navigation (ADN)** | 3469 |
| **Marine transport in accordance with IMDG** | 3469 |
| **Air transport in accordance with IATA** | 3469 |

### 14.2 UN proper shipping name

| | |
|---|---|
| **Transport by land according to ADR/RID** | Paint, flammable, corrosive (Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine) |
| **- Classification Code** | FC |
| **- Label** |  |
| **- ADR LQ** | 5 l |
| **- ADR 1.1.3.6 (8.6)** | Transport category (tunnel restriction code) 3 (D/E) |
| **Inland navigation (ADN)** | Paint, flammable, corrosive (Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine) |
| **- Classification Code** | FC |
| **- Label** |  |
| **Marine transport in accordance with IMDG** | Paint, flammable, corrosive (Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine) |
| **- EMS** | F-E, S-C |
| **- Label** |  |
| **- IMDG LQ** | 5 l |
| **Air transport in accordance with IATA** | Paint, flammable, corrosive (Fatty acid, Pine oil, Reaction product with bisphenol A, Epichlorohydrin, Glycidyl tolyl ether and Triethylenetetramine) |
| **- Label** |  |

### 14.3 Transport hazard class(es)

| | |
|---|---|
| **Transport by land according to ADR/RID** | 3 (8) |
| **Inland navigation (ADN)** | 3 (8) |
| **Marine transport in accordance with IMDG** | 3 (8) |
| **Air transport in accordance with IATA** | 3 (8) |

### 14.4 Packing group

| | |
|---|---|
| **Transport by land according to ADR/RID** | III |
| **Inland navigation (ADN)** | III |
| **Marine transport in accordance with IMDG** | III |
| **Air transport in accordance with IATA** | III |

### 14.5 Environmental hazards

| | |
|---|---|
| **Transport by land according to ADR/RID** | yes |
| **Inland navigation (ADN)** | yes |
| **Marine transport in accordance with IMDG** | MARINE POLLUTANT |
| **Air transport in accordance with IATA** | yes |

### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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

| | |
|---|---|
| **EEC-REGULATIONS** | 2008/98/EG (2000/532/EG ); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EG) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EWG ((EG) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148; (EU) 2019/1021 |
| **- Comment on component parts** | Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. |
| **- Annex I (REACH)** | The product is not subject to Annex I restrictions. |
| **- Annex XIV (REACH)** | According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation. |
| **- Annex XVII (REACH)** | According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains ≥ 0.1% of substances with the following restrictions. 40, 75 |
| | According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions.<br>3 |
| **TRANSPORT-REGULATIONS** | ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024) |
| **NATIONAL REGULATIONS (DE):** | Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905. |
| **- Water hazard class** | 2, conf. AwSV, 18.04.2017 |
| **- Decree for case of interference, observe limits** | yes |
| **- Class. according to TA-Luft** | 5.2.5. |
| **Storage class (TRGS 510)** | Storage class 3 (TRGS 510) |
| **- Observe employment restrictions for people** | Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people. |
| **- VOC (2010/75/CE)** | < 500 g/l |
| **- Other regulations** | Principles of industrial medicine Occupational Safety Regulations G29: Toluene, Xylene.<br>DGUV Information 213-079: Tätigkeiten mit Gefahrstoffen - Informationen für Beschäftigte.<br>DGUV Information 213-072: Lösemittel (Merkblatt M 017 der Reihe "Gefahrstoffe")<br>TRGS 401: Gefährdung durch Hautkontakt. - Ermittlung, Beurteilung, Maßnahmen.<br>TRGS 510: Storage of hazardous substances in non-stationary containers<br>DGUV Information 213-070: Säuren und Laugen (Merkblatt M 004 der Reihe „Gefahrstoffe“) |

### 15.2 Chemical safety assessment

not applicable

## SECTION 16: Other information

### 16.1 Hazard statements (SECTION 3)

H373 May cause damage to the respiratory system through prolonged or repeated exposure through inhalation.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to hearing organs through prolonged or repeated exposure.
H225 Highly flammable liquid and vapour.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.
H335 May cause respiratory irritation.
H319 Causes serious eye irritation.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H312+H332 Harmful in contact with skin or if inhaled.
H226 Flammable liquid and vapour.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H318 Causes serious eye damage.

### 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

### 16.3 Other information

**Classification procedure**

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data)
Skin Corr. 1: H314 Causes severe skin burns and eye damage. (Calculation method)
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Eye Dam. 1: H318 Causes serious eye damage. (On basis of test data)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)
Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects. (Calculation method)

**Modified position**

1.3, 2.1, 2.2, 3.2, 4.3, 8.1, 8.2, 9.1, 11.1, 11.2, 12.6, 14.1, 14.2, 14.3, 14.5, 15.1, 16.1, 16.2, 16.3