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



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

1.1. **Product identifier**

| | |
|---|---|
| Article No. (manufacturer/supplier): | 2 K30R0 00000 |
| Trade name/designation | epple K30 R<br>black |

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

**Relevant identified uses:**
Adhesive for the gluing of most diverse substrates.

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

**supplier (manufacturer/importer/downstream user/distributor)**

E. Epple & Co. GmbH
Hertzstr. 8
71083 Herrenberg

Telephone: +49 7032 / 9771-17
Telefax: +49 7032 / 9771-60
www.epple-chemie.de

**Department responsible for information:**
laboratory
E-mail (competent person) labor@epple-chemie.de

1.4. **Emergency telephone number**
Information center against poisoning Bonn +49 (0) 228 / 19 240 (Advice in German)

## 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. 2 / H225 | Flammable liquids | Highly flammable liquid and vapour. |
| 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 / H336 | STOT-single exposure | May cause drowsiness or dizziness. |
| Aquatic Chronic 2 / H411 | Hazardous to the aquatic environment | Toxic to aquatic life with long lasting effects. |

2.2. **Label elements**

The product is classified and labelled according to EC directives or corresponding national laws.

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

**Hazard pictograms**

**Danger**

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing vapours. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P501 | Dispose of contents/container in accordance with local/regional/ national/international regulations. |

**Hazard components for labelling**
Ethyl acetate

**Supplemental hazard information**

| | |
|---|---|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| EUH208 | Contains rosin colophony; Zinc bis (dibutyldithiocarbamate). May produce an allergic reaction. |

2.3. **Other hazards**

No information available.

## SECTION 3: Composition/information on ingredients

3.2. **Mixtures**

**Description** thermoplastic caoutchouc

**Hazardous ingredients**

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

| EC No.<br>CAS No.<br>Index No. | REACH No.<br>Designation<br>classification: // Remark | weight-% |
|---|---|---|
| 205-500-4<br>141-78-6<br>607-022-00-5 | 01-2119475103-46<br>Ethyl acetate<br>Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336 | 49,9 - 74,9 |
| 927-510-4 | 01-2119475515-33<br>Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>Skin Irrit. 2 H315 / STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 2 H225 | 9,9 - 19,9 |
| 232-475-7<br>8050-09-7<br>650-015-00-7 | 01-2119480418-32<br>rosin colophony<br>Skin Sens. 1 H317 | 0,1 - 0,9 |
| 205-232-8<br>136-23-2<br>006-081-00-9 | 01-2119535161-51<br>Zinc bis (dibutyldithiocarbamate)<br>Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / STOT SE 3 H335 / Aquatic Acute 1 H400 (M = 1) / Aquatic Chronic 1 H410 (M = 10) | 0,1 - 0,9 |

**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. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

## 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. Floors must be electrically conductive.

**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 5 °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**

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

TWA: 730 mg/m3; 200 ppm
STEL: 1460 mg/m3; 400 ppm

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

**DNEL:**

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6
DNEL short-term oral (acute), Workers:
DNEL long-term dermal (systemic), Workers: 63 mg/kg bw/day
DNEL acute inhalative (local), Workers: 1468 mg/m³
DNEL acute inhalative (systemic), Workers: 1468 mg/m³
DNEL long-term inhalative (local), Workers: 734 mg/m³
DNEL long-term inhalative (systemic), Workers: 734 mg/m³
DNEL short-term oral (acute), Consumer:
DNEL long-term dermal (systemic), Consumer: 37 mg/kg bw/day

**PNEC:**

Ethyl acetate
Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6
PNEC aquatic, freshwater: 0,26 mg/L
PNEC aquatic, marine water: 0,026 mg/L
PNEC aquatic, intermittent release: 1,65 mg/L
PNEC sediment, freshwater: 1,25 mg/kg
PNEC sediment, marine water: 0,125 mg/kg
PNEC, soil: 0,24 mg/kg
PNEC sewage treatment plant (STP): 650 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.Recommendation: Half-face mask Filter type: ABEK-P2

**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:**

| | |
|---|---|
| **Appearance:** | **Liquid** |
| **Colour:** | **black** |
| **Odour:** | **like Solvents** |

| | |
|---|---|
| **Odour threshold:** | **not applicable** |
| **pH at 20 °C:** | **not relevant** |
| **Melting point/freezing point:** | **-83 °C**<br>Source: Ethyl acetate |
| **Initial boiling point and boiling range:** | **77 °C**<br>Source: Ethyl acetate |
| **Flash point:** | **-4 °C** |
| **Evaporation rate:** | **5,4 mg/s**<br>Source: Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics |
| **flammability** | |
| **Burning time:** | **not applicable** |
| **Upper/lower flammability or explosive limits:** | |
| **Lower explosion limit:** | **1 Vol-%**<br>Source: Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics |
| **Upper explosion limit:** | **12,8 Vol-%**<br>Source: Ethyl acetate |
| **Vapour pressure at 20 °C:** | **98,4 mbar**<br>Source: Ethyl acetate |
| **Vapour density:** | **not applicable** |
| **Relative density:** | |
| **Density at 20 °C:** | **0,94 g/cm³** |
| **Solubility(ies):** | |
| **Water solubility at 20 °C:** | **insoluble** |
| **Partition coefficient: n-octanol/water:** | **see section 12** |
| **Auto-ignition temperature:** | **246 °C**<br>Source: Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics |
| **Decomposition temperature:** | **not applicable** |
| **Viscosity at °C:** | **1 - 2 Pa*s** |
| **Explosive properties:** | **not applicable** |
| **Oxidising properties:** | **not applicable** |

9.2. **Other information**

## 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**

Ethyl acetate

oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 18000 mg/kg
inhalative (vapours), LC50, Rat: > 22,5 mg/L (6 h)

rosin colophony
oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rat: > 2000 mg/kg

Zinc bis (dibutyldithiocarbamate)
oral, LD50, Rat: > 5000 mg/kg
dermal, LD50, Rabbit: > 5000 mg/kg
Method: OECD 402

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
oral, LD50, Rat: > 5840 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 2920 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 23,3 mg/L (4 h)
Method: OECD 403

**Skin corrosion/irritation; Serious eye damage/eye irritation**

Causes skin irritation.

Causes serious eye irritation.

Ethyl acetate
eyes, Rabbit: Evaluation mild irritant.
Method: OECD 405
Skin, Rabbit (4 h): Evaluation non-irritant.

**Respiratory or skin sensitisation**

Ethyl acetate
Skin, Guinea pig: ; Evaluation not sensitising.
Method: OECD 406

rosin colophony
Skin: ; Evaluation May cause sensitization by skin contact.

Zinc bis (dibutyldithiocarbamate)
Skin, Guinea pig: ; Evaluation Sensitising

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Based on available data, the classification criteria are not met.

**STOT-single exposure; STOT-repeated exposure**

May cause drowsiness or dizziness.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Practical experience/human evidence**

**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.

**Remark**

There is no information available on the preparation itself .

## 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**

Ethyl acetate
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 230 mg/L (96 h)
Bacteria toxicity, NOEC:, Pseudomonas putida: 650 mg/L (16 h)

rosin colophony
Fish toxicity, LC50, Danio rerio (zebrafish): >= 1 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 911 mg/L (48 h)
Algae toxicity, EC50, Scenedesmus subspicatus: 410 mg/L (72 h)

Zinc bis (dibutyldithiocarbamate)
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 520 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna: 0,74 mg/L (48 h)
Method: EPA Ser. 660/3-75009
Algae toxicity, EC50, Chlorella pyrenoidosa: 1,1 mg/L (96 h)
Method: OECD 201
Bacteria toxicity, EC50, Activated sludge: 1428 mg/L (3 h)
Method: OECD 209
Fish toxicity, LC50, Lepomis macrochirus (Bluegill): 880 mg/L (96 h)

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Fish toxicity, LL50, Oncorhynchus mykiss (Rainbow trout): 13,4 mg/L (96 h)
Algae toxicity, EL50, Pseudokirchneriella subcapitata 10 - 30 mg/L (72 h)
Daphnia toxicity, EL50, Daphnia magna: 3 mg/L (48 h)
Daphnia toxicity, NOELR, Pseudokirchneriella subcapitata: 10 mg/L (72 h)

**Long-term Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Ethyl acetate
Fish toxicity, NOEC, Pimephales promelas (fathead minnow): < 9,65 mg/L (32 d)
Daphnia toxicity, NOEC, Daphnia magna: 2,4 mg/L (21 d)
Bacteria toxicity, NOEC, Pseudomonas putida: 650 mg/L (16 h)
Method: DIN 38412

Zinc bis (dibutyldithiocarbamate)
Fish toxicity, NOEC, Danio rerio : 0,32 mg/L (10 d)
Method: OECD 210
Daphnia toxicity, NOEC, Daphnia magna: 0,0032 mg/L (21 d)
Method: OECD 211

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Daphnia toxicity, NOELR, Daphnia magna: 1 mg/L (21 day(s))
Daphnia toxicity, EL50, Daphnia magna: 1,6 mg/L (21 day(s))

12.2. **Persistence and degradability**

Ethyl acetate
Biodegradation, aerobic: 69 % (20 d); Evaluation Readily biodegradable

Zinc bis (dibutyldithiocarbamate)
Biodegradation:: 2 % (28 d); Evaluation Not readily biodegradable (according to OECD criteria)
Method: OECD 301F

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Biodegradation: 81 % (28 d)

12.3. **Bioaccumulative potential**
Toxicological data are not available.

**Bioconcentration factor (BCF)**

Ethyl acetate
Bioconcentration factor (BCF), Leuciscus idus (golden orfe): 30

12.4. **Mobility in soil**
Toxicological data are not 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**
080409* Waste adhesives and sealants containing organic solvents or other dangerous substances

**Appropriate disposal / Package**
**Dispose of packaging and contaminated filters at a offical hazardous waste incinerator facility.**
Recommendation:
Waste codes / waste designations according to EWC / AVV: 15 01 10*

## SECTION 14: Transport information

14.1. **UN number**

UN 1133

14.2. **UN proper shipping name**

| | |
|---|---|
| Land transport (ADR/RID): | Adhesives |
| Sea transport (IMDG): | ADHESIVES |
| Air transport (ICAO-TI / IATA-DGR): | Adhesives |

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

3

14.4. **Packing group**

| | |
|---|---|
| Land transport (ADR/RID): | III |
| for packages > 450 litres: | II |
| Sea transport (IMDG): | III |
| for packages > 450 litres | II |
| Air transport (ICAO-TI / IATA-DGR): | III |
| for packages > 30 litres: | II |

14.5. **Environmental hazards**

| | |
|---|---|
| Land transport (ADR/RID) | DANGEROUS FOR THE ENVIRONMENT |
| Marine pollutant | p |

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 | E |
| for packages > 450 litres: | D/E<br>special prescription 640D |

**Sea transport (IMDG)**

| | |
|---|---|
| EmS-No. | F-E, S-D |

**Air transport (ICAO-TI / IATA-DGR)**

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): 659

**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).

**Substance/product listed in the following inventories:**
AICS no informtion
DSL no information
IECSC no information
KECI no information
MITI no information
PICCS no information
TSCA no information

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

| EC No.<br>CAS No. | Designation | REACH No. |
|---|---|---|
| 205-500-4<br>141-78-6 | Ethyl acetate | 01-2119475103-46 |
| 927-510-4 | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | 01-2119475515-33 |
| 232-475-7<br>8050-09-7 | rosin colophony | 01-2119480418-32 |
| 205-232-8<br>136-23-2 | Zinc bis (dibutyldithiocarbamate) | 01-2119535161-51 |

## SECTION 16: Other information

**Full text of classification in section 3**

| | | |
|---|---|---|
| Flam. Liq. 2 / H225 | Flammable liquids | Highly flammable liquid and vapour. |
| Eye Irrit. 2 / H319 | Serious eye damage/eye irritation | Causes serious eye irritation. |
| STOT SE 3 / H336 | STOT-single exposure | May cause drowsiness or dizziness. |
| Skin Irrit. 2 / H315 | Skin corrosion/irritation | Causes skin irritation. |
| Asp. Tox. 1 / H304 | Aspiration hazard | May be fatal if swallowed and enters airways. |
| Aquatic Chronic 2 / H411 | Hazardous to the aquatic environment | Toxic to aquatic life with long lasting effects. |
| Skin Sens. 1 / H317 | Respiratory or skin sensitisation | May cause an allergic skin reaction. |
| STOT SE 3 / H335 | STOT-single exposure | May cause respiratory irritation. |
| Aquatic Acute 1 / H400 | Hazardous to the aquatic environment | Very toxic to aquatic organisms. |
| Aquatic Chronic 1 / H410 | Hazardous to the aquatic environment | Very toxic to aquatic life with long lasting effects. |

**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