

SAFETY DATA SHEET

Date of issue/Date of revision

: 28 February 2025

Version

: 2.02



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

1.1 Product identifier

Product name : SIGMAFAST 278 BASE RAL 7043

Product code : 000001202980

Other means of identification

00477808

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

Product use : Professional applications, Used by spraying.

Use of the substance/mixture : Coating.

Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL

Tweemontstraat 104

B-2100 Deurne

Belgium

Telephone +32-33606311

Fax +32-33606435

e-mail address of person responsible for this SDS : Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Flam. Liq. 3, H226

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Skin Sens. 1, H317

Repr. 1B, H360F

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

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SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May damage fertility.
Toxic to aquatic life with long lasting effects.

Prevention

: Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response

: Collect spillage. IF exposed or concerned: Get medical advice or attention.

Storage

: Not applicable.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.
P280, P210, P273, P391, P308 + P313, P501

Hazardous ingredients

: bis-[4-(2,3-epoxypropoxy)phenyl]propane; benzyl alcohol; Phenol, styrenated; oxirane, mono[(C12-14-alkyloxy)methyl] derivs. and Octadecanamide, N,N'-1,6-hexanediyldis [12-hydroxy-

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Restricted to professional users.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % by weight | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|--|---|-------------|--|---|---------|
| 1,4-bis-(2,3-epoxipropoxy)phenylpropane | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | ≥10 - ≤25 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5% | [1] [2] |
| xylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 | ≥5.0 - ≤10 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l | [1] [2] |
| benzyl alcohol | REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5 | ≥1.0 - ≤5.0 | Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 | ATE [Oral] = 1200 mg/kg | [1] [2] |
| Phenol, styrenated | EC: 262-975-0 CAS: 61788-44-1 | ≥1.0 - ≤5.0 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411 | - | [1] |
| 1-methoxy-2-propanol | REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3 | ≥1.0 - ≤5.0 | Flam. Liq. 3, H226 STOT SE 3, H336 | - | [1] [2] |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | REACH #: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4 | ≥1.0 - ≤5.0 | Skin Irrit. 2, H315 Skin Sens. 1B, H317 Repr. 1B, H360F | - | [1] |
| trizinc bis(orthophosphate) | REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6 | ≤1.0 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 1 M [Chronic] = 1 | [1] |
| Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy- | CAS: 55349-01-4 | <1.0 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 See Section 16 for the full text of the H statements declared above. | - | [1] |

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SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations

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SECTION 4: First aid measures

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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SECTION 6: Accidental release measures

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See

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SECTION 7: Handling and storage

Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)


See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection


The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|--|---|
| <p> 1,4-bis-[4-(2,3-epoxipropoxy)phenyl]propane</p> <p>xylene</p> | <p>DFG MAC-values list (Germany, 7/2023) Skin sensitiser.</p> <p>TRGS 900 OEL (Germany, 6/2024) [XyloI] Absorbed through skin.</p> <p>TWA 8 hours: 220 mg/m³.</p> <p>PEAK 15 minutes: 440 mg/m³.</p> |
| benzyl alcohol | <p>TWA 8 hours: 50 ppm.</p> <p>PEAK 15 minutes: 100 ppm.</p> <p>TRGS 900 OEL (Germany, 6/2024) Absorbed through skin.</p> <p>PEAK 15 minutes: 10 ppm.</p> <p>PEAK 15 minutes: 44 mg/m³.</p> <p>TWA 8 hours: 22 mg/m³.</p> <p>TWA 8 hours: 5 ppm.</p> |
| 1-methoxy-2-propanol | <p>TRGS 900 OEL (Germany, 6/2024)</p> <p>TWA 8 hours: 370 mg/m³.</p> <p>PEAK 15 minutes: 740 mg/m³.</p> <p>TWA 8 hours: 100 ppm.</p> <p>PEAK 15 minutes: 200 ppm.</p> |

Biological exposure indices

| Product/ingredient name | Exposure indices |
|--|---|
| <p> xylene</p> | <p>DFG BEI-values list (Germany, 7/2023) [Xylene (all isomers)]</p> <p>Notes: danger from percutaneous absorption (see p. 211 and p. 228).</p> <p>BEI: 2000 mg/l, methylhippuric acid (toluric acid) (all isomers) [in urine]. Sampling time: end of exposure or end of shift.</p> <p>TRGS 903 - BEI Values (Germany, 2/2024) [Xylene (all isomers)]</p> <p>BEI: 2000 mg/l, methylhippuric acid [in urine]. Sampling time: end of exposure or end of shift.</p> |
| 1-methoxy-2-propanol | <p>DFG BEI-values list (Germany, 7/2023)</p> <p>BEI: 15 mg/l, propylene glycol 1-methyl ether [in urine]. Sampling time: end of exposure or end of shift.</p> <p>TRGS 903 - BEI Values (Germany, 2/2024)</p> <p>BEI: 15 mg/l, 1-methoxypropan-2-ol [in urine]. Sampling time: end of exposure or end of shift.</p> |

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SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Exposure | Value | |
|--|---|--|---|
| 1,4-bis-[4-(2,3-epoxipropoxy)phenyl]propane | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> 12.25 mg/m ³ | |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Systemic</i> 12.25 mg/m ³ | |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> 8.33 mg/kg bw/day | |
| | DNEL - Workers - Short term - Dermal | <i>Effects: Systemic</i> 8.33 mg/kg bw/day | |
| | DNEL - General population - Consumers - Long term - Dermal | <i>Effects: Systemic</i> 3.571 mg/kg bw/day | |
| | DNEL - General population - Consumers - Short term - Dermal | <i>Effects: Systemic</i> 3.571 mg/kg bw/day | |
| | DNEL - General population - Consumers - Long term - Oral | <i>Effects: Systemic</i> 0.75 mg/kg bw/day | |
| | DNEL - General population - Consumers - Short term - Oral | <i>Effects: Systemic</i> 0.75 mg/kg bw/day | |
| | DNEL - General population - Long term - Dermal | <i>Effects: Systemic</i> 89.3 µg/kg bw/day | |
| | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> 0.5 mg/kg bw/day | |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> 0.75 mg/kg bw/day | |
| | DNEL - General population - Long term - Inhalation | <i>Effects: Systemic</i> 0.87 mg/m ³ | |
| | xylene | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> 4.93 mg/m ³ |
| | | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> 5 mg/kg bw/day |
| DNEL - General population - Long term - Inhalation | | <i>Effects: Local</i> 65.3 mg/m ³ | |
| DNEL - General population - Long term - Inhalation | | <i>Effects: Systemic</i> 65.3 mg/m ³ | |
| DNEL - General population - Long term - Dermal | | <i>Effects: Systemic</i> 125 mg/kg bw/day | |
| DNEL - Workers - Long term - Dermal | | <i>Effects: Systemic</i> 212 mg/kg bw/day | |
| benzyl alcohol | DNEL - Workers - Long term - Inhalation | <i>Effects: Local</i> 221 mg/m ³ | |
| | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> 221 mg/m ³ | |
| | DNEL - General population - Short term - Inhalation | <i>Effects: Local</i> 260 mg/m ³ | |
| | DNEL - General population - Short term - Inhalation | <i>Effects: Systemic</i> 260 mg/m ³ | |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Local</i> 442 mg/m ³ | |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Systemic</i> 442 mg/m ³ | |
| | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> 4 mg/kg bw/day | |
| | DNEL - General population - Long term - Dermal | <i>Effects: Systemic</i> 4 mg/kg bw/day | |
| | DNEL - General population - Long term - Inhalation | <i>Effects: Systemic</i> 5.4 mg/m ³ | |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> 8 mg/kg bw/day | |
| DNEL - General population - Short term - Oral | <i>Effects: Systemic</i> 20 mg/kg bw/day | | |
| DNEL - General population - Short term - Dermal | <i>Effects: Systemic</i> 20 mg/kg bw/day | | |
| DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> 22 mg/m ³ | | |
| DNEL - General population - Short term - | <i>Effects: Systemic</i> 27 mg/m ³ | | |

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SECTION 8: Exposure controls/personal protection

| | | | |
|--|--|--------------------------|-------------------------|
| Phenol, styrenated | Inhalation | | |
| | DNEL - Workers - Short term - Dermal | <i>Effects: Systemic</i> | 40 mg/kg bw/day |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Systemic</i> | 110 mg/m ³ |
| | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> | 0.75 mg/kg bw/day |
| | DNEL - General population - Long term - Dermal | <i>Effects: Systemic</i> | 0.75 mg/kg bw/day |
| 1-methoxy-2-propanol | DNEL - General population - Long term - Inhalation | <i>Effects: Systemic</i> | 1.31 mg/m ³ |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> | 2.1 mg/kg bw/day |
| | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> | 7.4 mg/m ³ |
| | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> | 33 mg/kg bw/day |
| | DNEL - General population - Long term - Inhalation | <i>Effects: Systemic</i> | 43.9 mg/m ³ |
| oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | DNEL - General population - Long term - Dermal | <i>Effects: Systemic</i> | 78 mg/kg bw/day |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> | 183 mg/kg bw/day |
| | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> | 369 mg/m ³ |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Local</i> | 553.5 mg/m ³ |
| | DNEL - Workers - Short term - Inhalation | <i>Effects: Systemic</i> | 553.5 mg/m ³ |
| | DNEL - General population - Long term - Oral | <i>Effects: Systemic</i> | 0.5 mg/kg bw/day |
| | DNEL - General population - Long term - Dermal | <i>Effects: Systemic</i> | 0.5 mg/kg bw/day |
| | DNEL - General population - Long term - Inhalation | <i>Effects: Systemic</i> | 0.87 mg/m ³ |
| | DNEL - Workers - Long term - Dermal | <i>Effects: Systemic</i> | 1 mg/kg bw/day |
| | DNEL - Workers - Long term - Inhalation | <i>Effects: Systemic</i> | 3.6 mg/m ³ |

PNECs

| Product/ingredient name | Compartment Detail - Method | Value |
|--|--|-----------------|
| Diis-[4-(2,3-epoxipropoxy)phenyl]propane | Fresh water - Assessment Factors | 0.006 mg/l |
| | Marine water - Assessment Factors | 0.001 mg/l |
| | Fresh water sediment - Equilibrium Partitioning | 0.996 mg/kg dwt |
| | Marine water sediment - Equilibrium Partitioning | 0.1 mg/kg dwt |
| | Soil - Equilibrium Partitioning | 0.196 mg/kg dwt |
| | Sewage Treatment Plant - Assessment Factors | 10 mg/l |
| | Secondary Poisoning - Assessment Factors | 11 mg/kg |
| | Fresh water | 0.327 mg/l |
| | Marine water | 0.327 mg/l |
| | Sewage Treatment Plant | 6.58 mg/l |
| xylene | Fresh water sediment | 12.46 mg/kg dwt |
| | Marine water sediment | 12.46 mg/kg dwt |
| | Soil | 2.31 mg/kg |
| | Fresh water - Assessment Factors | 10 mg/l |
| | Marine water - Assessment Factors | 1 mg/l |
| 1-methoxy-2-propanol | Sewage Treatment Plant - Assessment Factors | 100 mg/l |
| | Fresh water sediment - Equilibrium Partitioning | 41.6 mg/kg |
| | Marine water sediment - Equilibrium Partitioning | 4.17 mg/kg |
| | Soil - Equilibrium Partitioning | 2.47 mg/kg |
| | Fresh water - Sensitivity Distribution | 20.6 µg/l |
| trizinc bis(orthophosphate) | Marine water - Sensitivity Distribution | 6.1 µg/l |
| | Sewage Treatment Plant - Assessment Factors | 100 µg/l |
| | Fresh water sediment - Sensitivity Distribution | 117.8 mg/kg dwt |
| | Marine water sediment - Equilibrium Partitioning | 56.5 mg/kg dwt |
| | Soil - Sensitivity Distribution | 35.6 mg/kg dwt |

8.2 Exposure controls

English (GB)

Germany

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SECTION 8: Exposure controls/personal protection

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles. Use eye protection according to EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Grey.

Odour : Aromatic. [Slight]

Melting point/freezing point : Not determined.

Boiling point or initial boiling point and boiling range : >37.78°C

Flammability : Not determined. There are no data available on the mixture itself.

Lower and upper explosion limit : Not available.

Flash point : Closed cup: 38°C

Auto-ignition temperature :

| Ingredient name | °C | °F | Method |
|----------------------|-----|-----|--------|
| 1-methoxy-2-propanol | 270 | 518 | |

Decomposition temperature : Stable under recommended storage and handling conditions (see Section 7).

pH : Not applicable. insoluble in water.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): >21 mm²/s

Viscosity : 60 - 100 s (ISO 6mm)

Solubility :

| Media | Result |
|------------|-------------|
| cold water | Not soluble |

Partition coefficient n-octanol/ water (log Pow) : Not applicable.

Vapour pressure :

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|----------------------|-------------------------|-----|--------|-------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| 1-methoxy-2-propanol | 8.5 | 1.1 | | | | |

Relative density : 1.7

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.

Oxidising properties : Product does not present an oxidizing hazard.

No additional information.

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SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
- 10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- 10.6 Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

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

The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.

- Causes serious eye irritation.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May damage fertility.

Acute toxicity

| Product/ingredient name | Result | Dose / Exposure |
|--|--|---------------------|
| Diis-[4-(2,3-epoxipropoxy)phenyl] propane | Rabbit - Dermal - LD50 | 23000 mg/kg |
| xylene | Rat - Oral - LD50 | 15000 mg/kg |
| | Rat - Oral - LD50 | 4.3 g/kg |
| | Rabbit - Dermal - LD50 | 1.7 g/kg |
| benzyl alcohol | Rabbit - Dermal - LD50 | >2000 mg/kg |
| | Rat - Oral - LD50 | 1200 mg/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5 mg/l [4 hours] |
| Phenol, styrenated | Rabbit - Dermal - LD50 | >5010 mg/kg |
| | <i>Toxic effects:</i> Gastrointestinal - Gastritis Liver - Other changes Kidney, Ureter, and Bladder - Other changes | |
| | Rat - Oral - LD50 | 3550 mg/kg |
| | <i>Toxic effects:</i> Behavioral - Food intake (animal) | |
| | Gastrointestinal - Gastritis Liver - Other changes | |
| 1-methoxy-2-propanol | Rabbit - Dermal - LD50 | 13 g/kg |
| | Rat - Oral - LD50 | 5.2 g/kg |
| | Rat - Inhalation - LC50 Vapour | >7000 ppm [6 hours] |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | Rat - Oral - LD50 | 17100 mg/kg |
| | Rabbit - Dermal - LD50 | >4000 mg/kg |
| trizinc bis(orthophosphate) | Rat - Oral - LD50 | >5000 mg/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5.7 mg/l [4 hours] |

Acute toxicity estimates

| | |
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| Route | ATE value |
|----------------------|----------------|
| Oral | 48241.21 mg/kg |
| Dermal | 30916.55 mg/kg |
| Inhalation (vapours) | 200.05 mg/l |

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

| Product/ingredient name | Result |
|--|--|
| Bis-[4-(2,3-epoxipropoxy)phenyl] propane | Rabbit - <u>Eyes - Redness of the conjunctivae</u> Duration of treatment/exposure: 24 hours Irritation score: 0.4 |
| - | Rabbit - <u>Eyes - Mild irritant</u> Duration of treatment/exposure: 24 hours Fully reversible in 7 days or less |
| - | Rabbit - <u>Skin - Erythema/Eschar</u> Duration of treatment/exposure: 4 hours Irritation score: 0.8 |
| - | Rabbit - <u>Skin - Oedema</u> Duration of treatment/exposure: 4 hours Irritation score: 0.5 |
| - | Rabbit - <u>Skin - Mild irritant</u> Duration of treatment/exposure: 4 hours |
| xylene | Rabbit - <u>Skin - Moderate irritant</u> Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours |

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

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

Respiratory or skin sensitization

| Product/ingredient name | Test | Result |
|--|--------------------------|---------------------|
| Bis-[4-(2,3-epoxipropoxy)phenyl] propane | Mouse - skin | Result: Sensitising |
| Phenol, styrenated | Mouse - skin OECD 429 | Result: Sensitising |

Conclusion/Summary

Skin : May cause an allergic skin reaction.

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

May damage fertility.

Specific target organ toxicity (single exposure)

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SECTION 11: Toxicological information

| Product/ingredient name | Category | Route of exposure | Target organs |
|--------------------------------|--------------------------|-------------------|--|
| Xylene 1-methoxy-2-propanol | Category 3 Category 3 | - - | Respiratory tract irritation Narcotic effects |

Conclusion/Summary

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

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| Xylene | ASPIRATION HAZARD - Category 1 |

Conclusion/Summary

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

Information on likely routes of exposure : Not available.

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

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Potential chronic health effects

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : May damage fertility.
- Other information** : Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

12.1 Toxicity

| Product/ingredient name | Result | Species | Dose / Exposure |
|--|----------------------------|--------------------------------|-----------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Chronic - NOEC | Daphnia | 0.3 mg/l [21 days] |
| | Acute - LC50 - Fresh water | Daphnia - <i>daphnia magna</i> | 1.8 mg/l [48 hours] |
| Phenol, styrenated | Acute - EC50 | Daphnia | 3.8 mg/l [48 hours] |
| | Acute - LC50 - Fresh water | Fish - Goldfish | >4500 mg/l [96 hours] |
| 1-methoxy-2-propanol | Acute - LC50 | Daphnia - Daphnia | 23300 mg/l [48 hours] |
| | LC50 | Fish | >1.8 mg/l [96 hours] |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | EC50 | Daphnia | 7.2 mg/l [48 hours] |
| | EC50 | Algae | 844 mg/l [72 hours] |
| trizinc bis(orthophosphate) | Acute - LC50 | Fish | 0.112 mg/l [96 hours] |
| | Chronic - NOEC | Fish | 0.026 mg/l [30 days] |

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose / Inoculum |
|---|---|----------------------------|-----------------|
| Phenol, styrenated oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | OECD 301F | 7% [28 days] - Not readily | |
| | OECD [Ready Biodegradability - Manometric Respirometry Test] | 87% [28 days] - Readily | |

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SECTION 12: Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| <input checked="" type="checkbox"/> Bis-[4-(2,3-epoxipropoxy)phenyl]propane | - | - | Not readily |
| xylene | - | - | Readily |
| benzyl alcohol | - | - | Readily |
| Phenol, styrenated | - | - | Not readily |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-------------|-----------|
| <input checked="" type="checkbox"/> xylene | 3.12 | 7.4 to 18.5 | Low |
| benzyl alcohol | 0.87 | - | Low |
| 1-methoxy-2-propanol | <1 | - | Low |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 3.77 | 160 to 263 | Low |

12.4 Mobility in soil

Soil/water partition coefficient

| Product/ingredient name | logK _{oc} | K _{oc} |
|---|--------------------|-----------------|
| <input checked="" type="checkbox"/> Bis-[4-(2,3-epoxipropoxy)phenyl]propane | 4.02 | 10465.7 |
| benzyl alcohol | 1.1 | 12.6442 |
| 1-methoxy-2-propanol | 1.02 | 10.447 |
| Octadecanamide, N,N'-1,6-hexanediylbis [12-hydroxy- | 4.31 | 20556.9 |

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

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SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste :

European waste catalogue (EWC)

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances |

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

| Type of packaging | European waste catalogue (EWC) |
|-------------------|--------------------------------|
| Container | 15 01 06 mixed packaging |

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---------------------------------|-----------------|-----------------|---|--|
| 14.1 UN number or ID number | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | PAINT | PAINT | PAINT | PAINT |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable. | Not applicable. | (bis-[4-(2,3-epoxypropoxy)phenyl]propane) | Not applicable. |

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Tunnel code : (D/E)

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SECTION 14: Transport information

- ADN** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorisation](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

| Product/ingredient name | Entry Number (REACH) |
|--|------------------------|
| SIGMAFAST 278 BASE RAL 7043 | 3 |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 30 |
| | 30 |

Labelling : Restricted to professional users.

Explosive precursors : Not applicable.

[Ozone depleting substances \(EU 2024/590\)](#)

Not listed.

[Seveso Directive](#)

This product is controlled under the Seveso Directive.

[Remark](#)

| Category |
|-----------|
| P5c E2 |

[National regulations](#)

| Product/ingredient name | List name | Not available. | Classification | Notes |
|-----------------------------|---------------------|----------------------------------|----------------|-------|
| trizinc bis(orthophosphate) | DFG MAC-values list | Zinc and its inorganic compounds | Develop C | - |

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SECTION 15: Regulatory information

| Ingredient name | Carcinogen | Mutagen | Reproductive toxicity - Fertility | Reproductive toxicity - Development |
|----------------------------|-----------------|---------|-----------------------------------|-------------------------------------|
| 1-Allyloxy-2,3-epoxypropan | Not applicable. | M (-) | Not applicable. | RD (-) |

Based on the data available at the time of evaluation, no classification could be made to the categories listed in Annex I to the CLP Regulation.

Storage class (TRGS 510) : 3

Danger criteria

| Category | Reference number |
|----------|------------------|
| P5c | 1.2.5.3 |
| E2 | 1.3.2 |

Hazard class for water : Class 2

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

References : First General Administrative Regulation Pertaining to the Federal Immission Control Act (Technical Instructions on Air Quality Control – TA Luft) ; General administrative regulations amending the administrative regulations on water endangering substances (2005) ; Law on Explosive Substances (Explosive Act - SprengG) ; Law on the protection of young workers ; Ordinance on the Implementation of Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003 amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances (Twelfth Ordinance on the Implementation of the Federal Immission Control Act (Major Accidents Ordinance) (12th Federal Immission Control Ordinance – 12. BImSchV)) ; Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC ; Regulation on the Carriage of Dangerous Goods by Road (GGVS) [European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)] ; Regulation on the Carriage of Dangerous Substances on the Rhine (ADN) ; Regulation on the complementary implementation of the EC Directive on Maternity Protection (MuSchRiv - Maternity Protection Directive Regulation) Regulation on the European Liste of Wastes (GCU - Waste Regulation directory) ; Regulation on the protection against hazardous chemicals ; Regulation on the restrictions on the marketing and use of certain dangerous substances, preparations and articles according to the Chemicals Law ; Technical Rules for Hazardous Substances (TRGS): Directory of carcinogenic, mutagenic and reprotoxic substances (TRGS 905) ; Technical Rules for Hazardous Substances (TRGS): Occupational Exposure Limits (TRGS 900)

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

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SECTION 16: Other information

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|---|---|
| Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 2, H411 | On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method |

Full text of abbreviated H statements

| | |
|-------|---|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H360F | May damage fertility. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects to aquatic life. |

Full text of classifications [CLP/GHS]

| | |
|-------------------|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Repr. 1B | REPRODUCTIVE TOXICITY - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| Skin Sens. 1B | SKIN SENSITISATION - Category 1B |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

| | |
|-----------------------------|--|
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SECTION 16: Other information

History

Date of issue/ Date of revision : 28 February 2025

Date of previous issue : 10 January 2025

Prepared by : EHS

Version : 2.02

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.