

# SAFETY DATA SHEET

Date of issue/Date of revision

: 24 August 2025

Version

: 4



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

### 1.1 Product identifier

**Product name** : SIGMASHIELD 880 BASE RED 6188

**Product code** : 00376443

#### Other means of identification

Not available.

### 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

#### National advisory body/Poison Centre

**Telephone number** : Poison Information Centre; emergency telephone, public + 45 82 12 12 12 (health sector +45 35 31 55 55)

## 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

Muta. 2, H341

Aquatic Chronic 3, H412

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                                                                                                                        | : | Warning                                                                                                                                                                                                                                                                            |
| Hazard statements                                                                                                                  | : | Flammable liquid and vapour.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>Suspected of causing genetic defects.<br>Harmful to aquatic life with long lasting effects.                                                   |
| <u>Precautionary statements</u>                                                                                                    |   |                                                                                                                                                                                                                                                                                    |
| Prevention                                                                                                                         | : | Do not handle until all safety precautions have been read and understood. 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                                                                                                                           | : | 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.<br>P202, P280, P210, P273, P308 + P313, P501                                                                                                                     |
| Hazardous ingredients                                                                                                              | : | <input checked="" type="checkbox"/> Bis-[4-(2,3-epoxipropoxy)phenyl]propane; Epoxy Resin (700<MW<=1100); Phenol, methylstyrenated; 2,3-epoxypropyl neodecanoate and Octadecanamide, N, N'-1,6-hexanediylbis[12-hydroxy-                                                            |
| Supplemental label elements                                                                                                        | : | <input checked="" type="checkbox"/> 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 | : | Not applicable.                                                                                                                                                                                                                                                                    |
| <u>Special packaging requirements</u>                                                                                              |   |                                                                                                                                                                                                                                                                                    |
| Containers to be fitted with child-resistant fastenings                                                                            | : | Not applicable.                                                                                                                                                                                                                                                                    |
| Tactile warning of danger                                                                                                          | : | Not applicable.                                                                                                                                                                                                                                                                    |
| <br>2.3 Other hazards                                                                                                              |   |                                                                                                                                                                                                                                                                                    |
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII                                  | : | <input checked="" type="checkbox"/> This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.                                                                                                                                                |

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SECTION 2: Hazards identification

**Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.** : Based on available data, the classification criteria are not met.

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

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    |
|-----------------------------------------|----------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------|
| Bis-[4-(2,3-epoxipropoxy)phenyl]propane | REACH #:<br>01-2119456619-26<br>EC: 216-823-5<br>CAS: 1675-54-3<br>Index: 603-073-00-2 | ≥10 - ≤22   | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411                                                                                     | Skin Irrit. 2, H315: C ≥ 5%<br>Eye Irrit. 2, H319: C ≥ 5%         | [1]     |
| Epoxy Resin (700<MW ≤1100)              | CAS: 25036-25-3                                                                        | ≥1.0 - ≤5.0 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317                                                                                                                | -                                                                 | [1]     |
| ethylbenzene                            | REACH #:<br>01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4  | ≥1.0 - ≤5.0 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373 (hearing organs)<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412                                                   | ATE [Inhalation (vapours)] = 17.8 mg/l                            | [1] [2] |
| Phenol, methylstyrenated                | REACH #:<br>01-2119555274-38<br>EC: 270-966-8<br>CAS: 68512-30-1                       | ≥1.0 - ≤5.0 | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412                                                                                                           | -                                                                 | [1] [3] |
| xylene                                  | REACH #:<br>01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7                        | ≥1.0 - ≤5.0 | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412 | ATE [Dermal] = 1700 mg/kg<br>ATE [Inhalation (vapours)] = 11 mg/l | [1] [2] |
| 2-methoxy-1-methylethyl acetate         | REACH #:<br>01-2119475791-29<br>EC: 203-603-9<br>CAS: 108-65-6<br>Index: 607-195-00-7  | ≥1.0 - ≤5.0 | Flam. Liq. 3, H226<br>STOT SE 3, H336                                                                                                                                          | -                                                                 | [1] [2] |
| 2-methylpropan-1-ol                     | REACH #:<br>01-2119484609-23<br>EC: 201-148-0<br>CAS: 78-83-1<br>Index: 603-108-00-1   | ≥1.0 - <3.0 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336                                                                            | -                                                                 | [1] [2] |

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SECTION 3: Composition/information on ingredients

|                                                      |                                                                                         |              |                                                                                                                           |                                   |     |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----|
| 2,3-epoxypropyl neodecanoate                         | REACH #:<br>01-2119431597-33<br>EC: 247-979-2<br>CAS: 26761-45-5<br>Index: 607-770-00-2 | ≥0.10 - ≤2.1 | Skin Sens. 1A, H317<br>Muta. 2, H341<br>Repr. 2, H361d<br>Aquatic Chronic 2, H411                                         | Skin Sens. 1, H317: C<br>≥ 0.001% | [1] |
| Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy- | CAS: 55349-01-4                                                                         | ≥1.0 - ≤5.0  | Skin Sens. 1, H317<br>Aquatic Chronic 4, H413<br><br>See Section 16 for the full text of the H statements declared above. | -                                 | [1] |

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
  - [3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- 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. 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. Defatting to the skin. 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

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## SECTION 4: First aid measures

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| <b>Inhalation</b>   | : No specific data.                                                                           |
| <b>Skin contact</b> | : Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking |
| <b>Ingestion</b>    | : No specific data.                                                                           |

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

- |                            |                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes to physician</b>  | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| <b>Specific treatments</b> | : No specific treatment.                                                                                                                                              |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- |                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam. |
| <b>Unsuitable extinguishing media</b> | : Do not use water jet.                                          |

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

- |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazards from the substance or mixture</b> | : 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 harmful 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. |
| <b>Hazardous combustion products</b>         | : Decomposition products may include the following materials:<br>carbon oxides<br>nitrogen oxides<br>metal oxide/oxides                                                                                                                                                                                                                                                                                                |

### 5.3 Advice for firefighters

- |                                                       |                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special precautions for fire-fighters</b>          | : 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.                                      |
| <b>Special protective equipment for fire-fighters</b> | : 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

- |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>For non-emergency personnel</b> | : 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. |
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SECTION 6: Accidental release measures

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 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".                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 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.                                                                                                                                                                                                                                                                                                                 |
| 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.<br>See Section 8 for information on appropriate personal protective equipment.<br>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. 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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SECTION 7: Handling and storage

**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 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                                                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ethylbenzene                    | <b>Working Environment Authority (Denmark, 12/2024)</b> K. Absorbed through skin.<br>TWA 8 hours: 50 ppm.<br>TWA 8 hours: 217 mg/m³.<br>STEL 15 minutes: 434 mg/m³.<br>STEL 15 minutes: 100 ppm.                              |
| xylene                          | <b>Working Environment Authority (Denmark, 12/2024)</b> [xylen, alle isomere] Absorbed through skin.<br>TWA 8 hours: 25 ppm.<br>TWA 8 hours: 109 mg/m³.<br>STEL 15 minutes: 442 mg/m³.<br>STEL 15 minutes: 100 ppm.           |
| 2-methoxy-1-methylethyl acetate | <b>Working Environment Authority (Denmark, 12/2024)</b> [2-methoxy-1-methylethylacetat] Absorbed through skin.<br>TWA 8 hours: 50 ppm.<br>TWA 8 hours: 275 mg/m³.<br>STEL 15 minutes: 550 mg/m³.<br>STEL 15 minutes: 100 ppm. |
| 2-methylpropan-1-ol             | <b>Working Environment Authority (Denmark, 12/2024)</b> [butanol, alle isomere] Absorbed through skin.<br>CEIL: 50 ppm.<br>CEIL: 150 mg/m³.                                                                                   |

**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

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## SECTION 8: Exposure controls/personal protection

| Product/ingredient name                 | Exposure                                                                       | Value                   |
|-----------------------------------------|--------------------------------------------------------------------------------|-------------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | DNEL - Workers - Long term - Inhalation<br><i>Systemic</i>                     | 12.25 mg/m <sup>3</sup> |
|                                         | DNEL - Workers - Short term - Inhalation<br><i>Systemic</i>                    | 12.25 mg/m <sup>3</sup> |
|                                         | DNEL - Workers - Long term - Dermal<br><i>Systemic</i>                         | 8.33 mg/kg bw/day       |
|                                         | DNEL - Workers - Short term - Dermal<br><i>Systemic</i>                        | 8.33 mg/kg bw/day       |
|                                         | DNEL - General population - Consumers - Long term - Dermal<br><i>Systemic</i>  | 3.571 mg/kg bw/day      |
|                                         | DNEL - General population - Consumers - Short term - Dermal<br><i>Systemic</i> | 3.571 mg/kg bw/day      |
|                                         | DNEL - General population - Consumers - Long term - Oral<br><i>Systemic</i>    | 0.75 mg/kg bw/day       |
|                                         | DNEL - General population - Consumers - Short term - Oral<br><i>Systemic</i>   | 0.75 mg/kg bw/day       |
|                                         | DNEL - General population - Long term - Dermal<br><i>Systemic</i>              | 89.3 µg/kg bw/day       |
|                                         | DNEL - General population - Long term - Oral<br><i>Systemic</i>                | 0.5 mg/kg bw/day        |
|                                         | DNEL - Workers - Long term - Dermal<br><i>Systemic</i>                         | 0.75 mg/kg bw/day       |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Systemic</i>          | 0.87 mg/m <sup>3</sup>  |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Systemic</i>                     | 4.93 mg/m <sup>3</sup>  |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Local</i>                        | 442 mg/m <sup>3</sup>   |
| ethylbenzene                            | DNEL - Workers - Short term - Inhalation<br><i>Systemic</i>                    | 884 mg/m <sup>3</sup>   |
|                                         | DNEL - General population - Long term - Oral<br><i>Systemic</i>                | 1.6 mg/kg bw/day        |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Systemic</i>          | 15 mg/m <sup>3</sup>    |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Systemic</i>                     | 77 mg/m <sup>3</sup>    |
|                                         | DNEL - Workers - Long term - Dermal<br><i>Systemic</i>                         | 180 mg/kg bw/day        |
|                                         | DNEL - Workers - Short term - Inhalation<br><i>Local</i>                       | 293 mg/m <sup>3</sup>   |
| Phenol, methylstyrenated                | DNEL - General population - Long term - Oral<br><i>Systemic</i>                | 0.2 mg/kg bw/day        |
|                                         | DNEL - Workers - Long term - Dermal<br><i>Systemic</i>                         | 3.5 mg/kg bw/day        |
|                                         | DNEL - General population - Long term - Dermal<br><i>Systemic</i>              | 1.67 mg/kg bw/day       |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Systemic</i>                     | 1.41 mg/m <sup>3</sup>  |
| xylene                                  | DNEL - General population - Long term - Inhalation<br><i>Systemic</i>          | 0.348 mg/m <sup>3</sup> |
|                                         | DNEL - General population - Long term - Oral<br><i>Systemic</i>                | 5 mg/kg bw/day          |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Local</i>             | 65.3 mg/m <sup>3</sup>  |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Systemic</i>          | 65.3 mg/m <sup>3</sup>  |
|                                         | DNEL - General population - Long term - Dermal<br><i>Systemic</i>              | 125 mg/kg bw/day        |
|                                         | DNEL - Workers - Long term - Dermal<br><i>Systemic</i>                         | 212 mg/kg bw/day        |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Local</i>                        | 221 mg/m <sup>3</sup>   |
|                                         | DNEL - Workers - Long term - Inhalation<br><i>Systemic</i>                     | 221 mg/m <sup>3</sup>   |
|                                         | DNEL - General population - Short term - Inhalation<br><i>Local</i>            | 260 mg/m <sup>3</sup>   |
|                                         | DNEL - General population - Short term - Inhalation<br><i>Systemic</i>         | 260 mg/m <sup>3</sup>   |
| 2-methoxy-1-methylethyl acetate         | DNEL - Workers - Short term - Inhalation<br><i>Local</i>                       | 442 mg/m <sup>3</sup>   |
|                                         | DNEL - Workers - Short term - Inhalation<br><i>Systemic</i>                    | 442 mg/m <sup>3</sup>   |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Local</i>             | 33 mg/m <sup>3</sup>    |
|                                         | DNEL - General population - Long term - Inhalation<br><i>Systemic</i>          | 33 mg/m <sup>3</sup>    |

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## SECTION 8: Exposure controls/personal protection

|                              |                                                    |          |                        |
|------------------------------|----------------------------------------------------|----------|------------------------|
| 2-methylpropan-1-ol          | DNEL - General population - Long term - Oral       | Systemic | 36 mg/kg bw/day        |
|                              | DNEL - Workers - Long term - Inhalation            | Systemic | 275 mg/m <sup>3</sup>  |
|                              | DNEL - General population - Long term - Dermal     | Systemic | 320 mg/kg bw/day       |
|                              | DNEL - Workers - Short term - Inhalation           | Local    | 550 mg/m <sup>3</sup>  |
|                              | DNEL - Workers - Long term - Dermal                | Systemic | 796 mg/kg bw/day       |
| 2,3-epoxypropyl neodecanoate | DNEL - General population - Long term - Inhalation | Local    | 55 mg/m <sup>3</sup>   |
|                              | DNEL - Workers - Long term - Inhalation            | Local    | 310 mg/m <sup>3</sup>  |
|                              | DNEL - General population - Long term - Dermal     | Systemic | 2.5 mg/kg bw/day       |
|                              | DNEL - General population - Long term - Inhalation | Systemic | 4 mg/m <sup>3</sup>    |
|                              | DNEL - Workers - Long term - Dermal                | Systemic | 4.2 mg/kg bw/day       |
|                              | DNEL - Workers - Long term - Inhalation            | Systemic | 5.88 mg/m <sup>3</sup> |
|                              | DNEL - General population - Long term - Oral       | Systemic | 2.5 mg/kg bw/day       |

### PNECs

| Product/ingredient name                  | Compartment Detail - Method                      | Value           |
|------------------------------------------|--------------------------------------------------|-----------------|
| bis-[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 |
| ethylbenzene                             | Sewage Treatment Plant - Assessment Factors      | 10 mg/l         |
|                                          | Secondary Poisoning - Assessment Factors         | 11 mg/kg        |
|                                          | Fresh water - Assessment Factors                 | 0.1 mg/l        |
|                                          | Marine water - Assessment Factors                | 0.01 mg/l       |
|                                          | Sewage Treatment Plant - Assessment Factors      | 9.6 mg/l        |
| xylene                                   | Fresh water sediment - Equilibrium Partitioning  | 13.7 mg/kg dwt  |
|                                          | Marine water sediment - Equilibrium Partitioning | 1.37 mg/kg dwt  |
|                                          | Soil - Equilibrium Partitioning                  | 2.68 mg/kg dwt  |
|                                          | Secondary Poisoning                              | 20 mg/kg        |
|                                          | Fresh water                                      | 0.327 mg/l      |
| 2-methoxy-1-methylethyl acetate          | Marine water                                     | 0.327 mg/l      |
|                                          | Sewage Treatment Plant                           | 6.58 mg/l       |
|                                          | Fresh water sediment                             | 12.46 mg/kg dwt |
|                                          | Marine water sediment                            | 12.46 mg/kg dwt |
|                                          | Soil                                             | 2.31 mg/kg      |
| 2-methylpropan-1-ol                      | Fresh water                                      | 0.635 mg/l      |
|                                          | Marine water                                     | 0.0635 mg/l     |
|                                          | Fresh water sediment                             | 3.29 mg/kg      |
|                                          | Marine water sediment                            | 0.329 mg/kg     |
|                                          | Soil                                             | 0.29 mg/kg      |
|                                          | Sewage Treatment Plant                           | 100 mg/l        |
|                                          | Fresh water - Assessment Factors                 | 0.4 mg/l        |
|                                          | Marine water - Assessment Factors                | 0.04 mg/l       |
|                                          | Sewage Treatment Plant - Assessment Factors      | 10 mg/l         |
|                                          | Fresh water sediment - Equilibrium Partitioning  | 1.56 mg/kg dwt  |
|                                          | Marine water sediment                            | 0.156 mg/kg dwt |
|                                          | Soil - Equilibrium Partitioning                  | 0.076 mg/kg dwt |

### 8.2 Exposure controls

|                                      |                                                        |
|--------------------------------------|--------------------------------------------------------|
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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

Colour

Odour

Melting point/freezing point

Boiling point or initial boiling point and boiling range

Flammability

Lower and upper explosion limit

Flash point

Auto-ignition temperature

Decomposition temperature

pH

Viscosity

Solubility

Partition coefficient n-octanol/ water (log Pow)

Vapour pressure

Relative density

Particle characteristics

Median particle size

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties

Oxidising properties

No additional information.

: Liquid.

: Various

: Characteristic.

: Not determined.

: >37.78°C

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

: Not available.

: Closed cup: 29°C

:

| Ingredient name              | °C  | °F    | Method |
|------------------------------|-----|-------|--------|
| 2,3-epoxypropyl neodecanoate | 276 | 528.8 |        |

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

: Not applicable. insoluble in water.

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

:

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

: Not applicable.

| Ingredient name     | Vapour Pressure at 20°C |      |                | Vapour pressure at 50°C |     |        |
|---------------------|-------------------------|------|----------------|-------------------------|-----|--------|
|                     | mm Hg                   | kPa  | Method         | mm Hg                   | kPa | Method |
| 2-methylpropan-1-ol | <12.00102               | <1.6 | DIN EN 13016-2 |                         |     |        |

: 1.34

: Not applicable.

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

Product does not present an oxidizing hazard.

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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.<br>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:<br>oxidising agents, strong alkalis, strong acids.              |
| 10.6 Hazardous decomposition products   | : Depending on conditions, decomposition products may include the following materials:<br>carbon oxides    nitrogen oxides    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. |
| <input checked="" type="checkbox"/> Causes serious eye irritation.                                                                                                  |
| Causes skin irritation.                                                                                                                                             |
| May cause an allergic skin reaction.                                                                                                                                |
| Suspected of causing genetic defects.                                                                                                                               |

Acute toxicity

| Product/ingredient name                                                      | Result                         | Dose / Exposure     |
|------------------------------------------------------------------------------|--------------------------------|---------------------|
| <input checked="" type="checkbox"/> Bis-[4-(2,3-epoxipropoxy)phenyl] propane | Rabbit - Dermal - LD50         | 23000 mg/kg         |
| Epoxy Resin (700<MW<=1100)                                                   | Rat - Oral - LD50              | 15000 mg/kg         |
|                                                                              | Rat - Oral - LD50              | >2000 mg/kg         |
| ethylbenzene                                                                 | Rat - Dermal - LD50            | >2000 mg/kg         |
|                                                                              | Rat - Oral - LD50              | 3.5 g/kg            |
|                                                                              | Rabbit - Dermal - LD50         | 17.8 g/kg           |
| Phenol, methylstyrenated                                                     | Rat - Inhalation - LC50 Vapour | 17.8 mg/l [4 hours] |
|                                                                              | Rat - Oral - LD50              | >2000 mg/kg         |
| xylene                                                                       | Rabbit - Dermal - LD50         | >2000 mg/kg         |
|                                                                              | Rat - Oral - LD50              | 4.3 g/kg            |
| 2-methoxy-1-methylethyl acetate                                              | Rabbit - Dermal - LD50         | 1.7 g/kg            |
|                                                                              | Rabbit - Dermal - LD50         | >5 g/kg             |
|                                                                              | Rat - Oral - LD50              | 6190 mg/kg          |
| 2-methylpropan-1-ol                                                          | Rat - Inhalation - LC50 Vapour | 30 mg/l [4 hours]   |
|                                                                              | Rat - Oral - LD50              | 2830 mg/kg          |
|                                                                              | Rabbit - Dermal - LD50         | 2460 mg/kg          |
| 2,3-epoxypropyl neodecanoate                                                 | Rat - Inhalation - LC50 Vapour | 24.6 mg/l [4 hours] |
|                                                                              | Rat - Oral - LD50              | 9.6 g/kg            |
|                                                                              | Rat - Dermal - LD50            | 3800 mg/kg          |

Acute toxicity estimates

| Route                                      | ATE value      |
|--------------------------------------------|----------------|
| <input checked="" type="checkbox"/> Dermal | 51980.22 mg/kg |
| Inhalation (vapours)                       | 198.38 mg/l    |

|                               |            |                                |                  |
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SECTION 11: Toxicological information

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 - Eyes - Redness of the conjunctivae<br>Duration of treatment/exposure: 24 hours<br>Irritation score: 0.4      |
| -                                        | Rabbit - Eyes - Mild irritant<br>Duration of treatment/exposure: 24 hours<br>Fully reversible in 7 days or less       |
| -                                        | Rabbit - Skin - Erythema/Eschar<br>Duration of treatment/exposure: 4 hours<br>Irritation score: 0.8                   |
| -                                        | Rabbit - Skin - Oedema<br>Duration of treatment/exposure: 4 hours<br>Irritation score: 0.5                            |
| -                                        | Rabbit - Skin - Mild irritant<br>Duration of treatment/exposure: 4 hours                                              |
| xylene                                   | Rabbit - Skin - Moderate irritant<br>Amount/concentration applied: 500 mg<br>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 | Sensitising |

Conclusion/Summary

Skin : May cause an allergic skin reaction.

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

Mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

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

|                               |            |                                |                  |
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SECTION 11: Toxicological information

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

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs  |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene            | Category 2 | -                 | hearing organs |

Conclusion/Summary :

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

Aspiration hazard

| Product/ingredient name | Result                         |
|-------------------------|--------------------------------|
| ethylbenzene            | ASPIRATION HAZARD - Category 1 |
| 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. Defatting to the skin. May cause an allergic skin reaction.
- Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation : No specific data.
- Ingestion : No specific data.
- Skin contact : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- 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.

Potential chronic health effects

- General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity : No known significant effects or critical hazards.

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SECTION 11: Toxicological information

- Mutagenicity : Suspected of causing genetic defects.
- Reproductive toxicity : No known significant effects or critical hazards.
- Other information : Prolonged or repeated contact may dry skin and cause irritation. 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. Avoid contact with skin and clothing.

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]   |
| ethylbenzene                            | Acute - LC50 - Fresh water   | Daphnia - <i>daphnia magna</i>            | 1.8 mg/l [48 hours]  |
|                                         | Acute - EC50 - Fresh water   | Daphnia                                   | 1.8 mg/l [48 hours]  |
|                                         | Chronic - NOEC - Fresh water | Daphnia - <i>Ceriodaphnia dubia</i>       | 1 mg/l               |
| 2-methoxy-1-methylethyl acetate         | Acute - LC50 - Fresh water   | Fish - Trout - <i>Oncorhynchus mykiss</i> | 134 mg/l [96 hours]  |
| 2-methylpropan-1-ol                     | Acute - EC50                 | Daphnia                                   | 1100 mg/l [48 hours] |
| 2,3-epoxypropyl neodecanoate            | Acute - LC50                 | Fish - <i>Oncorhynchus mykiss</i>         | 9.6 mg/l [96 hours]  |
|                                         | Acute - EC50                 | Daphnia - <i>Daphnia magna</i>            | 4.8 mg/l [48 hours]  |
|                                         | Acute - EC50                 | Algae                                     | 3.5 mg/l [96 hours]  |

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

12.2 Persistence and degradability

| Product/ingredient name         | Test | Result                  | Dose / Inoculum |
|---------------------------------|------|-------------------------|-----------------|
| ethylbenzene                    | -    | 79% [10 days] - Readily |                 |
| 2-methoxy-1-methylethyl acetate | -    | 83% [28 days] - Readily |                 |
| 2,3-epoxypropyl neodecanoate    | -    | 7 to 11% [28 days]      |                 |

|                               |            |                                |                  |
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SECTION 12: Ecological information

| Product/ingredient name                   | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------------------------|-------------------|------------|------------------|
| ■ Bis-[4-(2,3-epoxipropoxy)phenyl]propane | -                 | -          | Not readily      |
| ethylbenzene                              | -                 | -          | Readily          |
| xylene                                    | -                 | -          | Readily          |
| 2-methoxy-1-methylethyl acetate           | -                 | -          | Readily          |
| 2,3-epoxypropyl neodecanoate              | -                 | -          | Not readily      |

12.3 Bioaccumulative potential

| Product/ingredient name         | LogP <sub>ow</sub> | BCF         | Potential |
|---------------------------------|--------------------|-------------|-----------|
| ■ ethylbenzene                  | 3.6                | 79.43       | Low       |
| Phenol, methylstyrenated        | 3.627              | -           | Low       |
| xylene                          | 3.12               | 7.4 to 18.5 | Low       |
| 2-methoxy-1-methylethyl acetate | 1.2                | -           | Low       |
| 2-methylpropan-1-ol             | 1                  | -           | Low       |
| 2,3-epoxypropyl neodecanoate    | 4.4                | -           | High      |

12.4 Mobility in soil

Soil/water partition coefficient

| Product/ingredient name                             | logK <sub>oc</sub> | K <sub>oc</sub> |
|-----------------------------------------------------|--------------------|-----------------|
| ■ Bis-[4-(2,3-epoxipropoxy)phenyl]propane           | 4                  | 10465.7         |
| ethylbenzene                                        | 2.2                | 170.406         |
| 2-methoxy-1-methylethyl acetate                     | 0.36               | 2.31363         |
| 2-methylpropan-1-ol                                 | 1.1                | 12.0246         |
| Octadecanamide, N,N'-1,6-hexanediylbis [12-hydroxy- | 4.3                | 20556.9         |

12.5 Results of PBT and vPvB assessment

| Product/ingredient name                              | PBT | P   | B   | T   | vPvB             | vP        | vB        |
|------------------------------------------------------|-----|-----|-----|-----|------------------|-----------|-----------|
| ■ Bis-[4-(2,3-epoxipropoxy)phenyl]propane            | No  | N/A | N/A | No  | N/A              | N/A       | N/A       |
| Epoxy Resin (700<MW ≤1100)                           | No  | N/A | N/A | No  | N/A              | N/A       | N/A       |
| ethylbenzene                                         | No  | N/A | No  | Yes | No               | N/A       | No        |
| Phenol, methylstyrenated                             | No  | N/A | N/A | No  | SVHC (Candidate) | Specified | Specified |
| xylene                                               | No  | N/A | No  | No  | No               | N/A       | No        |
| 2-methoxy-1-methylethyl acetate                      | No  | N/A | N/A | No  | N/A              | N/A       | N/A       |
| 2-methylpropan-1-ol                                  | No  | N/A | N/A | No  | N/A              | N/A       | N/A       |
| Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy- | No  | N/A | N/A | No  | N/A              | N/A       | N/A       |

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.

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SECTION 12: Ecological information

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                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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      | No.     | Yes.   | No.    | No.    |

|                               |            |                                |                  |
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SECTION 14: Transport information

|                             |                 |                 |                 |                 |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. | Not applicable. |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|

Additional information

|             |                                                                                                             |
|-------------|-------------------------------------------------------------------------------------------------------------|
| ADR/RID     | : None identified.                                                                                          |
| Tunnel code | : (D/E)                                                                                                     |
| ADN         | : The product is only regulated as an environmentally hazardous substance when transported in tank vessels. |
| IMDG        | : None identified.                                                                                          |
| IATA        | : None identified.                                                                                          |

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](#)

| Intrinsic property                                                                      | Ingredient name          | Status    | Reference number | Date of revision |
|-----------------------------------------------------------------------------------------|--------------------------|-----------|------------------|------------------|
|  PvB | Phenol, methylstyrenated | Candidate | D(2023) 8585-DC  | 1/23/2024        |

[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 ) |
|-------------------------------------------------------------------------------------------------------------------|------------------------|
|  SIGMASHIELD 880 BASE RED 6188 | 3                      |

Labelling : Not applicable.

Explosive precursors : Not applicable.

[Ozone depleting substances \(EU 2024/590\)](#)  
Not listed.

[Persistent Organic Pollutants](#)  
Not listed.

[Seveso Directive](#)  
This product is controlled under the Seveso Directive.  
[Danger criteria](#)

| Category                                                                               |
|----------------------------------------------------------------------------------------|
|  5c |

|                               |            |                                |                  |
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SECTION 15: Regulatory information

National regulations

Fire class : -1

Executive Order No. 1795/2015

| Ingredient name                                                                               | Annex I Section A | Annex I Section B |
|-----------------------------------------------------------------------------------------------|-------------------|-------------------|
|  ethylbenzene | Listed            | -                 |
| 2,3-epoxypropyl neodecanoate                                                                  | -                 | Muta. 2, H341     |

MAL-code : -5

Protection based on MAL : According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:

**General:** Gloves must be worn for all work that may result in soiling. Apron/coveralls/ protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 3-5  
**Application:** When using scraper or knife, brush, roller etc. for pre- and post-treatments in a spray booth where the operator is outside the spray zone and when working in similar new\* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When spraying in new\* booths and cabins with non-atomizing guns.

- Protective clothing must be worn.

During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing\* facility type, if the operator is inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied half mask, protective clothing and eye protection must be worn.

When spraying in new\* booths if the operator is outside the spray zone.

- Air-supplied half mask and eye protection must be worn.

When spraying in existing\* spray booths, if the operator is outside the spray zone. During non-atomising spraying in existing\* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone.

- Air-supplied full mask and protective clothing must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, protective clothing and hood must be worn.

|                               |            |                                |                  |
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SECTION 15: Regulatory information

**Drying:** Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

**Polishing:** When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

**Caution** The regulations contain other stipulations in addition to the above.

\*See Regulations.

|                                |                                                                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Restrictions on use            | : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work. |
| List of undesirable substances | : Listed                                                                                                                                                       |
| Carcinogenic waste             | : Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.                    |

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

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]

|                                      |                                                        |
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SECTION 16: Other information

| Classification                                                                                                                    | Justification                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Muta. 2, H341<br>Aquatic Chronic 3, H412 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

Full text of abbreviated H statements

|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H225<br>H226<br>H304<br>H312<br>H315<br>H317<br>H318<br>H319<br>H332<br>H335<br>H336<br>H341<br>H361d<br>H373<br><br>H411<br>H412<br>H413 | Highly flammable liquid and vapour.<br>Flammable liquid and vapour.<br>May be fatal if swallowed and enters airways.<br>Harmful in contact with skin.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Causes serious eye irritation.<br>Harmful if inhaled.<br>May cause respiratory irritation.<br>May cause drowsiness or dizziness.<br>Suspected of causing genetic defects.<br>Suspected of damaging the unborn child.<br>May cause damage to organs through prolonged or repeated exposure.<br>Toxic to aquatic life with long lasting effects.<br>Harmful to aquatic life with long lasting effects.<br>May cause long lasting harmful effects to aquatic life. |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Full text of classifications [CLP/GHS]

|                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Tox. 4<br>Aquatic Chronic 2<br>Aquatic Chronic 3<br>Aquatic Chronic 4<br>Asp. Tox. 1<br>Eye Dam. 1<br>Eye Irrit. 2<br>Flam. Liq. 2<br>Flam. Liq. 3<br>Muta. 2<br>Repr. 2<br>Skin Irrit. 2<br>Skin Sens. 1<br>Skin Sens. 1A<br>STOT RE 2<br><br>STOT SE 3 | ACUTE TOXICITY - Category 4<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4<br>ASPIRATION HAZARD - Category 1<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2<br>FLAMMABLE LIQUIDS - Category 2<br>FLAMMABLE LIQUIDS - Category 3<br>GERM CELL MUTAGENICITY - Category 2<br>REPRODUCTIVE TOXICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 2<br>SKIN SENSITISATION - Category 1<br>SKIN SENSITISATION - Category 1A<br>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

History

|                                        |                     |
|----------------------------------------|---------------------|
| <b>Date of issue/ Date of revision</b> | : 24 August 2025    |
| <b>Date of previous issue</b>          | : 11 September 2023 |
| <b>Prepared by</b>                     | : EHS               |
| <b>Version</b>                         | : 4                 |

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SECTION 16: Other information

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.*