

## atco SAFETY DATA SHEET

Resiflow Supergloss - Resin

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

#### 1.1 Product identifier

Product name : Resiflow Supergloss - Resin

Product description : Paint
Product type : Liquid.

UFI: MJG0-G0KK-F00S-4DQ7

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

|              | Identified uses |
|--------------|-----------------|
| Consumer     |                 |
| Industrial   |                 |
| Professional |                 |

| Uses advised against | Reason |
|----------------------|--------|
| None identified.     | -      |

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

Watco UK Limited Eastgate Court 195-205 High Street Guildford Surrey

Telephone no.: +44 (0) 1483 425000 (08:00 - 18:00)

Fax no.: +44 (0) 1483 428888

e-mail address of person : rpmeurohas@rustoleum.eu

responsible for this SDS

#### 1.4 Emergency telephone number

#### **National advisory body/Poison Centre**

**Supplier** 

GU13EH

Telephone number United Kingdom: : +44 870 8200418 / +44 2038073798

**Great Britain** 

Hours of operation : 24 / 7

## **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]

Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411

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

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

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## **SECTION 2: Hazards identification**

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

#### 2.2 Label elements

Hazard pictograms







Signal word : Danger

**Hazard statements**: H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage.

H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements** 

General: P103 - Read carefully and follow all instructions.

P102 - Keep out of reach of children.

P101 - If medical advice is needed, have product container or label at hand.

**Prevention**: P280 - Wear protective gloves. Wear eye or face protection.

P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

**Hazardous ingredients** : 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and

phenol

oxirane, mono[(C10-16-alkyloxy)methyl] derivs

1,4-bis(2,3-epoxypropoxy)butane bis-[4-(2,3-epoxipropoxi)phenyl]propane

phenol, methylstyrenated

Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives

pine oil

Supplemental label

elements

: EUH205 - Contains epoxy constituents. May produce an allergic reaction.

EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed.

Do not breathe spray or mist.

Supplemental label elements : Detergents - Regulation (EC) No

907/2006

: Not applicable.

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

articles

: Not applicable.

**Special packaging requirements** 

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

#### 2.3 Other hazards

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## **SECTION 2: Hazards identification**

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

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

Other hazards which do not result in classification

: None known.

## **SECTION 3: Composition/information on ingredients**

3.2 Mixtures : Mixture

**United Kingdom: Great Britain** 

| Product/ingredient name  | Identifiers  | %         | Classification  | Specific Conc.<br>Limits, M-factors<br>and ATEs  | Туре |  |
|--|--|-----------|---|--|------|--|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                |  | ≥10 - ≤25 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2,<br>H411   | Skin Irrit. 2, H315:<br>C ≥ 5%<br>Eye Irrit. 2, H319:<br>C ≥ 5%                                      | [1]  |  |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | REACH #:<br>01-2119454392-40<br>EC: 500-006-8<br>CAS: 9003-36-5                        | ≥10 - ≤25 | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 2,<br>H411   | -  | [1]  |  |
| oxirane, mono[<br>(C10-16-alkyloxy)methyl]<br>derivs                                 | EC: 268-358-2<br>CAS: 68081-84-5   | ≤5        | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2,<br>H411   | -  | [1]  |  |
| 1,4-bis(2,3-epoxypropoxy)<br>butane  | EC: 219-371-7<br>CAS: 2425-79-8<br>Index: 603-072-00-7                                 | ≤5        | Acute Tox. 4, H302<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Aquatic Chronic 3,<br>H412 | ATE [Oral] = 1134<br>mg/kg<br>ATE [Dermal] =<br>1130 mg/kg<br>ATE [Inhalation<br>(vapours)] = 11 mg/ | [1]  |  |
| hydrocarbons, aromatic, C9   | REACH #:<br>01-2119455851-35<br>List #: 918-668-5                                      | ≤3        | Flam. Liq. 3, H226<br>STOT SE 3, H335<br>STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2,<br>H411<br>EUH066   | -  | [1]  |  |
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane  | REACH #:<br>01-2119456619-26<br>EC: 216-823-5<br>CAS: 1675-54-3<br>Index: 603-073-00-2 | ≤3        | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1A, H317<br>Aquatic Chronic 2,<br>H411  | Skin Irrit. 2, H315:<br>C ≥ 5%<br>Eye Irrit. 2, H319:<br>C ≥ 5%                                      | [1]  |  |
| phenol, methylstyrenated   | REACH #:<br>01-2119555274-38<br>EC: 270-966-8<br>CAS: 68512-30-1                       | ≤1        | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 3,<br>H412   | -  | [1]  |  |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | REACH #:<br>01-2119485289-22<br>EC: 271-846-8  | ≤0,3      | Skin Irrit. 2, H315<br>Skin Sens. 1, H317   | -  | [1]  |  |

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## **SECTION 3: Composition/information on ingredients**

| =        |  |      |  |   |     |
|----------|--|------|--|---|-----|
|          | CAS: 68609-97-2<br>Index: 603-103-00-4 |      |  |   |     |
| pine oil | CAS: 8002-09-3<br>List #: 616-792-1    | ≤0,3 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2,<br>H411 | - | [1] |
|          |  |      | See Section 16 for<br>the full text of the H<br>statements declared<br>above.                                      |   |     |

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.

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

#### <u>Type</u>

[1] Substance classified with a health or environmental hazard

List numbers have no legal significance.

This mixture contains  $\geq 1\%$  of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

#### Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

#### Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Skin contact

: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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## **SECTION 4: First aid measures**

**Protection of first-aiders** 

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

**Ingestion**: Adverse symptoms may include the following:

stomach pains

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing** 

media

: None known.

## 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide sulfur oxides

halogenated compounds metal oxide/oxides

#### 5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

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

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## **SECTION 6: Accidental release measures**

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

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

## **6.2 Environmental** precautions

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

## 6.3 Methods and material for containment and cleaning up

**Small spill** 

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

### 6.4 Reference to other sections

See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

### 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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Advice on general occupational hygiene

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

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

Store in accordance with local regulations. 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. 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.

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## **SECTION 7: Handling and storage**

## **Seveso Directive - Reporting thresholds**

#### **Danger criteria**

|    | Notification and MAPP threshold | Safety report threshold |
|----|---------------------------------|-------------------------|
| E2 | 200 tonne                       | 500 tonne               |

## 7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

## solutions

## **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### **Occupational exposure limits**

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### **DNELs/DMELs**

| Product/ingredient name  | Type | Exposure                | Value                       | Population                     | Effects  |
|--|------|-------------------------|-----------------------------|--------------------------------|----------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | DNEL | Short term Dermal       | 83 mg/cm²                   | Workers                        | Local    |
| 2,0 opoxypropanie and phonon   | DNEL | Long term Dermal        | 104,15 mg/<br>kg bw/day     | Workers                        | Systemic |
|  | DNEL | Long term<br>Inhalation | 29,39 mg/<br>m <sup>3</sup> | Workers                        | Systemic |
|  | DNEL | Long term Dermal        | 62,5 mg/<br>kg bw/day       | General population [Consumers] | Systemic |
|  | DNEL | Long term<br>Inhalation | 8,7 mg/m <sup>3</sup>       | General population [Consumers] | Systemic |
|  | DNEL | Long term Oral          | 6,25 mg/<br>kg bw/day       | General population [Consumers] | Systemic |
| hydrocarbons, aromatic, C9   | DNEL | Long term<br>Inhalation | 150 mg/m³                   | Workers                        | Systemic |
|  | DNEL | Long term Dermal        | 25 mg/kg                    | Workers                        | Systemic |
|  | DNEL | Long term Dermal        | 11 mg/kg                    | General population             | Systemic |
|  | DNEL | Long term<br>Inhalation | 32 mg/m³                    | General population             | Systemic |
|  | DNEL | Long term Oral          | 11 mg/kg                    | General                        | Systemic |

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## **SECTION 8: Exposure controls/personal protection**

|   |                               |                          |                        | population         |                |
|---|-------------------------------|--------------------------|------------------------|--------------------|----------------|
| bis-[4-(2,3-epoxipropoxi)phenyl propane | ] DNEL                        | Short term Dermal        | 8,3 mg/kg              | Workers            | Systemic       |
|   | DNEL                          | Short term<br>Inhalation | 12,3 mg/m³             | Workers            | Systemic       |
|   | DNEL                          | Long term Dermal         | 8,3 mg/kg              | Workers            | Systemic       |
|   | DNEL                          | Long term                | 12,3 mg/m <sup>3</sup> |                    | Systemic       |
|   | DINEL                         | Inhalation               | 12,3 mg/m              | VVOIKEIS           | Systemic       |
|   | DNEL                          | Short term Dermal        | 3,6 mg/kg              | General            | Systemic       |
|   | DINEL                         | Short term Dermai        | 3,6 mg/kg              |                    | Systemic       |
|   | DAIE                          | 01                       | 0.75                   | population         | 0              |
|   | DNEL                          | Short term               | 0,75 mg/m <sup>3</sup> | General            | Systemic       |
|   | DNE                           | Inhalation               | 0.75//                 | population         | 0              |
|   | DNEL                          | Short term Oral          | 0,75 mg/kg             | General            | Systemic       |
|   | DATE                          |                          | 0.0 "                  | population         |                |
|   | DNEL                          | Long term Dermal         | 3,6 mg/kg              | General            | Systemic       |
|   | DAIE                          | 1 4                      | 0.75                   | population         | 0              |
|   | DNEL                          | Long term                | 0,75 mg/m <sup>3</sup> |                    | Systemic       |
|   | DAIE                          | Inhalation               | 0.75                   | population         | 0              |
|   | DNEL                          | Long term Oral           | 0,75 mg/kg             | General            | Systemic       |
|   | , , , , , , , , , , , , , , , | 0, ,,                    | 47 "                   | population         |                |
| Oxirane, mono [(C12-C14-alky            | loxy) DNEL                    | Short term Dermal        | 17 mg/kg               | Workers            | Systemic       |
| methyl] derivatives                     | DATE                          | 0, ,,                    | bw/day                 | \A/ I              |                |
|   | DNEL                          | Short term Dermal        | 68 mg/cm <sup>2</sup>  | Workers            | Local          |
|   | DNEL                          | Short term               | 29 mg/m³               | Workers            | Systemic       |
|   | 5.151                         | Inhalation               |                        |                    |                |
|   | DNEL                          | Short term               | 9,8 mg/m³              | Workers            | Local          |
|   |                               | Inhalation               | "                      |                    |                |
|   | DNEL                          | Long term Dermal         | 3,9 mg/kg              | Workers            | Systemic       |
|   | DATE                          |                          | bw/day                 | <b>1 1 1</b>       |                |
|   | DNEL                          | Long term                | 13,8 mg/m <sup>3</sup> | Workers            | Systemic       |
|   | DNE                           | Inhalation               | 4 7/2                  | \\/                | 1 1            |
|   | DNEL                          | Long term Dermal         | 1,7 mg/cm <sup>2</sup> |                    | Local          |
|   | DNEL                          | Long term                | 0,98 mg/m <sup>3</sup> | Workers            | Local          |
|   | DNEL                          | Inhalation               | 10 mg/kg               | Conoral            | Cuatamia       |
|   | DIVEL                         | Short term Dermal        | 10 mg/kg<br>bw/day     | General population | Systemic       |
|   |                               |                          | DW/day                 | [Consumers]        |                |
|   | DNEL                          | Short term               | 7,6 mg/m³              | General            | Systemic       |
|   | DIVLE                         | Inhalation               | 7,0 mg/m               | population         | Oysternic      |
|   |                               | IIIIIalation             |                        | [Consumers]        |                |
|   | DNEL                          | Short term Oral          | 1219 mg/               | General            | Systemic       |
|   | DIVLE                         | Onort term Oral          | kg bw/day              | population         | Oysternio      |
|   |                               |                          | g Swiday               | [Consumers]        |                |
|   | DNEL                          | Short term Dermal        | 40 mg/cm <sup>2</sup>  | General            | Local          |
|   |                               | SSIC COMIT DOMINA        | .59,5                  | population         |                |
|   |                               |                          |                        | [Consumers]        |                |
|   | DNEL                          | Short term               | 2,9 mg/m <sup>3</sup>  | General            | Local          |
|   |                               | Inhalation               | _,~g,                  | population         | == 550         |
|   |                               |                          |                        | [Consumers]        |                |
|   | DNEL                          | Long term Dermal         | 2,35 mg/               | General            | Systemic       |
|   |                               |                          | kg bw/day              | population         | '              |
|   |                               |                          |                        | [Consumers]        |                |
|   | DNEL                          | Long term                | 4,1 mg/m <sup>3</sup>  | General            | Systemic       |
|   |                               | Inhalation               |                        | population         | =              |
|   |                               |                          |                        | [Consumers]        |                |
|   | DNEL                          | Long term Oral           | 1 mg/kg                | General            | Systemic       |
|   |                               |                          | bw/day                 | population         |                |
|   |                               |                          | ,                      | [Consumers]        |                |
|   | DNEL                          | Long term Dermal         | 1 mg/cm <sup>2</sup>   | General            | Local          |
|   |                               |                          |                        | population         |                |
|   |                               |                          |                        | [Consumers]        |                |
|   | DNEL                          | Long term                | 1,46 mg/m <sup>3</sup> | General            | Local          |
| <u> </u>                                | . 24/11/2022                  | <u> </u>                 | . 04/44/04             |                    | raion 1.4 9/22 |

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## **SECTION 8: Exposure controls/personal protection**

| Inhalation | population  |  |
|------------|-------------|--|
|            | [Consumers] |  |

## **PNECs**

| Product/ingredient name  | Compartment Detail                        | Value                     | Method Detail            |
|--|---|---------------------------|--------------------------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Fresh water                               | 0,003 mg/l                | -                        |
| with 1 dilloto 2,5 spexypropario and phonor  | Marine water                              | 0,0003 mg/l               | _                        |
|  | Sewage Treatment                          | 10 mg/l                   | _                        |
|  | Plant                                     |                           |                          |
|  | Fresh water sediment                      | 0,294 mg/kg dwt           | -                        |
|  | Marine water sediment                     | 0,0294 mg/kg dwt          | -                        |
|  | Soil                                      | 0,237 mg/kg dwt           | -                        |
| titanium dioxide   | Fresh water                               | 0,127 mg/l                | -                        |
|  | Marine                                    | >1 mg/l                   | -                        |
|  | Sewage Treatment<br>Plant                 | >100 mg/l                 | -                        |
|  | Fresh water sediment                      | >1000 mg/kg               | -                        |
|  | Marine water sediment                     | >100 mg/kg                | -                        |
|  | Soil                                      | 100 mg/kg                 | -                        |
|  | Marine water                              | 0,0184 mg/l               | -                        |
| hi- [4 (0 0  | Fresh water                               | 0,184 mg/l                | -                        |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane  | Fresh water                               | 3 ng/l                    | -                        |
|  | Marine water Fresh water sediment         | 0,3 ng/l<br>0,5 mg/kg     | -                        |
|  | Marine water sediment                     | 0,5 mg/kg                 | _                        |
|  | Sediment                                  | 0,05 mg/kg                |                          |
|  | Sewage Treatment                          | 10 mg/l                   | _                        |
|  | Plant                                     | 10 11.g/.                 |                          |
| di-isobutyl ketone   | Fresh water                               | 0,03 mg/l                 | -                        |
| •  | Marine water                              | 0,003 mg/l                | -                        |
|  | Fresh water sediment                      | 0,46 mg/kg                | -                        |
|  | Marine water sediment                     | 0,046 mg/kg               | -                        |
|  | Sewage Treatment Plant                    | 2,55 mg/l                 | -                        |
|  | Soil                                      | 0,0746 mg/kg              | -                        |
| Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives                                 | Fresh water                               | 0,0072 mg/l               | -                        |
|  | Marine                                    | 0,00072 mg/l              | -                        |
|  | Sewage Treatment Plant                    | 10 mg/l                   | -                        |
|  | Fresh water sediment                      | 66,77 mg/kg dwt           | _                        |
|  | Marine water sediment                     | 6,677 mg/kg dwt           | -                        |
|  | Soil                                      | 80,12 mg/kg dwt           | -                        |
| xylene (mixture of isomeres)   | Fresh water                               | 0,327 mg/l                | Sensitivity Distribution |
|  | Marine water                              | 0,327 mg/l                | Sensitivity Distribution |
|  | Fresh water sediment                      | 12,46 mg/kg               | Equilibrium Partitioning |
|  | Marine water sediment Soil                | 12,46 mg/kg               | Equilibrium Partitioning |
|  |   | 2,31 mg/kg<br>6,58 mg/l   | Equilibrium Partitioning |
|  | Sewage Treatment                          |                           | -                        |
| Turpentine, oil  | Fresh water sediment                      | 8,8 µg/l                  | -                        |
|  | Marine                                    | 0,88 µg/l                 | -                        |
|  | Fresh water sediment Fresh water sediment | 2,27 mg/kg<br>0,227 mg/kg | <del>-</del>             |
|  | Soil                                      | 0,227 mg/kg<br>0,45 mg/kg | -                        |
|  | Sewage Treatment                          | 6,6 mg/l                  | -                        |
| 2 mothovy 1 mothylathyl costate  | Plant<br>Fresh water                      | 0.635 mg/l                |                          |
| 2-methoxy-1-methylethyl acetate  | Fresh water Fresh water sediment          | 0,635 mg/l<br>3,29 mg/kg  | <del>-</del>             |
|  | TELEVISION SECURIORIS                     | IU.ZU IIIU/NU             | , -                      |
|  | Marine water sediment                     | 0,329 mg/kg               | _                        |

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## **SECTION 8: Exposure controls/personal protection**

|                     | Soil                  | 0,29 mg/kg   | - |
|---------------------|-----------------------|--------------|---|
|                     | Sewage Treatment      | 100 mg/l     | - |
|                     | Plant                 |              |   |
| ethylbenzene        | Fresh water           | 0,1 mg/l     | - |
|                     | Marine water          | 0,01 mg/l    | - |
|                     | Fresh water sediment  | 13,7 mg/kg   | - |
|                     | Marine water sediment | 1,37 mg/kg   | - |
|                     | Soil                  | 2,68 mg/kg   | - |
|                     | Sewage Treatment      | 9,6 mg/l     | - |
|                     | Plant                 | _            |   |
| 2-methylpropan-1-ol | Fresh water           | 0,4 mg/l     | - |
|                     | Marine water          | 0,04 mg/l    | - |
|                     | Sewage Treatment      | 10 mg/l      | - |
|                     | Plant                 |              |   |
|                     | Fresh water sediment  | 1,52 mg/kg   | - |
|                     | Marine water sediment | 0,125 mg/kg  | - |
|                     | Soil                  | 0,0699 mg/kg | - |
|                     | 1                     | 1            | ı |

#### 8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### **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**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields. (EN 166)

#### **Skin protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

#### **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. > 8 hours (breakthrough time): (EN 374) neoprene (0.65mm)

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## SECTION 8: Exposure controls/personal protection

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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.

**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. Recommended: Wear overalls or long sleeved shirt. (EN 467)

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

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (as filter combination A-P2) (EN 140)

**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.

## 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

**Physical state** : Liquid.

Colour Not available.

**Odour** : Mild.

**Odour threshold** : Not available.

**Melting point/freezing point** 

**Initial boiling point and** 

boiling range

: Not available.

: Not relevant due to nature of the product.

Flammability (solid, gas) : Not available. Lower and upper explosion

limit

: Not available.

: Closed cup: >100°C (>212°F) [Literature] Flash point Not relevant due to nature of the product. **Auto-ignition temperature** 

**Decomposition temperature** 

: Not available. : Not applicable.

pH: Justification : Product is non-soluble (in water).

: Dynamic: >3600 mPa·s [ISO EN BS DIN 3219] **Viscosity** 

Solubility(ies)

Not available.

Solubility in water : Not available.

Miscible with water • No

Partition coefficient: n-octanol/ : Not applicable.

water

: <0,27 kPa (<2 mm Hg) [calculated.] Vapour pressure

: Not available. **Evaporation rate** 

Relative density : 1,71

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## **SECTION 9: Physical and chemical properties**

**Density** : 1,72 g/cm³ [20°C (68°F)] [DIN 53217]

Vapour density: Not available.Explosive properties: Not available.Oxidising properties: Not available.

**Particle characteristics** 

Median particle size : Not applicable.

## **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** : No specific data.

**10.5 Incompatible materials** : No specific data.

10.6 Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

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

## **Acute toxicity**

| Product/ingredient name   | Result                    | Species | Dose                   | Exposure |
|---|---------------------------|---------|------------------------|----------|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane | LD50 Dermal               | Rabbit  | 20 g/kg                | -        |
| oxirane, mono[<br>(C10-16-alkyloxy)methyl]<br>derivs                  | LD50 Oral                 | Rat     | >5000 mg/kg            | -        |
| 1,4-bis(2,3-epoxypropoxy)   | LD50 Dermal               | Rabbit  | 1130 mg/kg             | -        |
|   | LD50 Dermal               | Rat     | >2000 mg/kg            | _        |
|   | LD50 Oral                 | Rat     | 1134 mg/kg             | -        |
|   | LD50 Oral                 | Rat     | 1410 mg/kg             | -        |
| hydrocarbons, aromatic, C9  | LD50 Oral                 | Rat     | 8400 mg/kg             | -        |
| bis-[4-(2,3-epoxipropoxi) phenyl]propane                              | LD50 Dermal               | Rabbit  | 20 g/kg                | -        |
| phenol, methylstyrenated  | LD50 Dermal               | Rat     | >2000 mg/kg            | -        |
|   | LD50 Oral                 | Rat     | >3600 mg/kg            | -        |
| Oxirane, mono [   | LC50 Inhalation Dusts and | Rat     | >150 mg/m <sup>3</sup> | 7 hours  |
| (C12-C14-alkyloxy)methyl] derivatives                                 | mists                     |         |                        |          |
|   | LD50 Oral                 | Rat     | 17100 mg/kg            | -        |
| pine oil  | LD50 Dermal               | Rabbit  | 5 g/kg                 | -        |
|   | LD50 Oral                 | Rat     | 2,1 g/kg               | -        |

Conclusion/Summary

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

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**Acute toxicity estimates** 

## **SECTION 11: Toxicological information**

| Product/ingredient name  | Oral (mg/<br>kg) | Dermal<br>(mg/kg) | Inhalation<br>(gases)<br>(ppm) | Inhalation<br>(vapours)<br>(mg/l) | Inhalation<br>(dusts<br>and mists)<br>(mg/l) |
|--|------------------|-------------------|--------------------------------|-----------------------------------|--|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bisoxirane | N/A              | 20000             | N/A                            | N/A                               | N/A  |
| 1,4-bis(2,3-epoxypropoxy)butane                                      | 1134             | 1130              | N/A                            | 11                                | N/A  |
| hydrocarbons, aromatic, C9   | 8400             | N/A               | N/A                            | N/A                               | N/A  |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane                              | N/A              | 20000             | N/A                            | N/A                               | N/A  |
| Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives                 | 17100            | N/A               | N/A                            | N/A                               | N/A  |
| pine oil   | 2100             | 5000              | N/A                            | N/A                               | N/A  |

## **Irritation/Corrosion**

| Product/ingredient name  | Result  | Species | Score | Exposure                   | Observation |
|--|---|---------|-------|----------------------------|-------------|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | Eyes - Severe irritant                        | Rabbit  | -     | 24 hours 2<br>milligrams   | -           |
|  | Skin - Mild irritant                          | Rabbit  | -     | 500<br>milligrams          | -           |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Skin - Erythema/Eschar                        | Rabbit  | 0,7   | 4 hours                    | 72 hours    |
| ·  | Skin - Mild irritant                          | Rabbit  | -     | 24 hours 500 microliters   | -           |
| 1,4-bis(2,3-epoxypropoxy) butane   | Eyes - Moderate irritant                      | Rabbit  | -     | 100<br>milligrams          | -           |
|  | Skin - Moderate irritant                      | Rabbit  | -     | 24 hours 10 milligrams     | -           |
| hydrocarbons, aromatic, C9   | Eyes - Mild irritant                          | Rabbit  | -     | 24 hours 100<br>UI         | -           |
| bis-[4-(2,3-epoxipropoxi) phenyl]propane   | Eyes - Severe irritant                        | Rabbit  | -     | 24 hours 2 milligrams      | -           |
|  | Skin - Mild irritant                          | Rabbit  | -     | 500<br>milligrams          | -           |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | Eyes - Mild irritant                          | Rabbit  | -     | -                          | -           |
|  | Skin - Moderate irritant                      | Rabbit  | -     | 24 hours 500 microliters   | -           |
|  | Skin - Primary dermal irritation index (PDII) | Rabbit  | 4,1   | 24 hours                   | -           |
|  | Skin - Primary dermal irritation index (PDII) | Rabbit  | 5,75  | 24 hours                   | -           |
| pine oil   | Skin - Severe irritant                        | Rabbit  | -     | 24 hours 500<br>milligrams | -           |

## **Conclusion/Summary**

**Skin** : Causes skin irritation.

**Eyes** : Causes serious eye damage.

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

**Sensitisation** 

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## **SECTION 11: Toxicological information**

| Product/ingredient name  | Route of exposure | Species    | Result      |  |
|--|-------------------|------------|-------------|--|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | skin              | Guinea pig | Sensitising |  |
|  | skin              | Mouse      | Sensitising |  |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | skin              | Guinea pig | Sensitising |  |
| 1,4-bis(2,3-epoxypropoxy) butane   | skin              | Guinea pig | Sensitising |  |
| bis-[4-(2,3-epoxipropoxi) phenyl]propane   | skin              | Guinea pig | Sensitising |  |
| . , , .  | skin              | Mouse      | Sensitising |  |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | skin              | Guinea pig | Sensitising |  |

### **Conclusion/Summary**

**Skin** : May cause an allergic skin reaction.

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

## **Mutagenicity**

| Product/ingredient name  | Test     | Experiment   | Result   |
|--|----------|--|----------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | OECD 476 | Experiment: In vitro<br>Subject: Mammalian-Animal                                | Positive |
| ·  | OECD 471 | Subject: Bacteria  | Positive |
|  | OECD 474 | Subject: Mammalian-Animal  | Negative |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | OECD 476 | Experiment: In vitro<br>Subject: Mammalian-Animal                                | Negative |
|  | OECD 474 | Experiment: In vivo Subject: Mammalian-Animal                                    | Negative |
|  | OECD 475 | Experiment: In vivo Subject: Mammalian-Animal                                    | Negative |
|  | OECD 471 | Subject: Bacteria Metabolic activation: with and without S9 metabolic activation | Positive |

#### **Conclusion/Summary**

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

## **Carcinogenicity**

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

## Conclusion/Summary

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

## **Reproductive toxicity**

| Product/ingredient name  | Maternal toxicity | Fertility | Developmental<br>toxin | Species                         | Dose                         | Exposure |
|--|-------------------|-----------|------------------------|---------------------------------|------------------------------|----------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Negative          | -         | -                      | Rat                             | Oral: 540<br>mg/kg           | -        |
| hydrocarbons, aromatic, C9   | -                 | -         | Negative               | Mammal - species<br>unspecified | Route of exposure unreported | -        |

**Conclusion/Summary** 

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

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## **SECTION 11: Toxicological information**

#### **Teratogenicity**

| Product/ingredient name  | Result                                  | Species         | Dose       | Exposure                    |
|--|---|-----------------|------------|-----------------------------|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | Positive - Dermal                       | Rabbit          | 300 mg/kg  | 1 days per week             |
|  | Positive - Oral                         | Rabbit          | 180 mg/kg  | 1 days per week             |
|  | Positive - Oral                         | Rat             | 180 mg/kg  | 1 days per week             |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Negative - Route of exposure unreported | Rabbit - Female | >300 mg/kg | -                           |
|  | Positive - Dermal                       | Rabbit          | 300 mg/kg  | 6 hours; 7 days<br>per week |
|  | Positive - Dermal                       | Rabbit          | 100 mg/kg  | 6 hours; 7 days<br>per week |
| bis-[4-(2,3-epoxipropoxi) phenyl]propane   | Positive - Dermal                       | Rabbit          | 300 mg/kg  | 1 days per week             |
|  | Positive - Oral                         | Rabbit          | 180 mg/kg  | 1 days per week             |
|  | Positive - Oral                         | Rat             | 180 mg/kg  | 1 days per week             |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | Negative - Route of exposure unreported | Rat - Female    | >200 mg/kg | -                           |

### **Conclusion/Summary**

: 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                |
|----------------------------|------------|-------------------|------------------------------|
| hydrocarbons, aromatic, C9 | Category 3 | -                 | Respiratory tract irritation |
|                            | Category 3 |                   | Narcotic effects             |

#### Specific target organ toxicity (repeated exposure)

Not available.

## **Aspiration hazard**

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

**Information on likely routes**: Not available.

of exposure

## Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

: No known significant effects or critical hazards. Ingestion

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:

> pain watering redness

Inhalation : No specific data.

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## **SECTION 11: Toxicological information**

**Skin contact**: Adverse symptoms may include the following:

pain or irritation redness

blistering may occur

**Ingestion** : Adverse symptoms may include the following:

stomach pains

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

**Short term exposure** 

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

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

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

#### 11.2 Information on other hazards

## 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

Not available.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

| Product/ingredient name  | Result                | Species                    | Exposure |
|--|-----------------------|----------------------------|----------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Acute EC50 1,8 mg/l   | Algae                      | 72 hours |
| '  | Acute EC50 2 mg/l     | Daphnia spec.              | 24 hours |
|  | Acute EC50 1,6 mg/l   | Daphnia spec.              | 48 hours |
|  | Acute IC50 >100 mg/l  | Bacteria                   | 3 hours  |
|  | Acute LC50 0,55 mg/l  | Fish                       | 96 hours |
|  | Acute LC50 2 mg/l     | Fish                       | 96 hours |
|  | Chronic NOEC 0,3 mg/l | Daphnia spec.              | 21 days  |
| 1,4-bis(2,3-epoxypropoxy) butane   | Acute EC50 75 mg/l    | Daphnia spec Daphnia magna | 24 hours |
|  | Acute LC50 24 mg/l    | Fish - Brachydanio rerio   | 96 hours |
|  | Chronic NOEC 80 mg/l  | Algae                      | 72 hours |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | Acute EC50 >100 mg/l  | Bacteria                   | 3 hours  |
|  | Acute EC50 7,2 mg/l   | Daphnia spec.              | 48 hours |
|  | Acute IC50 844 mg/l   | Algae                      | 72 hours |

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## **SECTION 12: Ecological information**

|          | Acute LC50 1800 mg/l             | Fish                            | 96 hours |
|----------|----------------------------------|---------------------------------|----------|
|          | Acute LC50 5000 mg/l             | Fish                            | 96 hours |
| pine oil | Acute EC50 24,5 ppm Fresh water  | Daphnia spec Daphnia magna      | 48 hours |
|          | Acute LC50 18,35 ppm Fresh water | Fish - Oncorhynchus mykiss -    | 96 hours |
|          |                                  | Juvenile (Fledgling, Hatchling, |          |
|          |                                  | Weanling)                       |          |

**Conclusion/Summary** 

: Toxic to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

| Product/ingredient name  | Test      | Result                            | Dose | Inoculum |
|--|-----------|-----------------------------------|------|----------|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | OECD 301B | 6 to 12 % - Not readily - 28 days | -    | -        |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | OECD 301B | 16 % - Not readily - 28 days      | -    | -        |
|  | -         | 0 % - Not readily - 28 days       | -    | -        |
| bis-[4-(2,3-epoxipropoxi)  | OECD 301B | 6 to 12 % - Not readily - 28      | -    | -        |
| phenyl]propane   |           | days                              |      |          |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | OECD 301F | 57 to 65 % - Inherent - 7 days    | -    | -        |
|  | OECD 301D | 35 % - Not readily - 28 days      | -    | -        |

## **Conclusion/Summary**

: Based on available data, the classification criteria are not met. This product has not been tested for biodegradation.

| both total for blodogradation.   |                   |            |                        |  |  |
|--|-------------------|------------|------------------------|--|--|
| Product/ingredient name  | Aquatic half-life | Photolysis | Biodegradability       |  |  |
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | -                 | -          | Not readily            |  |  |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | -                 | -          | Not readily            |  |  |
| hydrocarbons, aromatic, C9<br>bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane            | -                 | -          | Readily<br>Not readily |  |  |
| Oxirane, mono [<br>(C12-C14-alkyloxy)methyl]<br>derivatives                          | -                 | -          | Not readily            |  |  |

## 12.3 Bioaccumulative potential

| Product/ingredient name  | LogP <sub>ow</sub> | BCF             | Potential   |
|--|--------------------|-----------------|-------------|
| 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane                | 3,84               | 3 to 31         | low         |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 2,7                | 150             | low         |
| oxirane, mono[<br>(C10-16-alkyloxy)methyl]<br>derivs                                 | >3                 | -               | low         |
| 1,4-bis(2,3-epoxypropoxy) butane   | -0,269             | -               | low         |
| hydrocarbons, aromatic, C9 bis-[4-(2,3-epoxipropoxi)                                 | 3.7 to 4.5<br>3,84 | 10 to 2500<br>- | high<br>low |

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| Resiflow Supergloss - Resin                                   |               |                 |            |  |
|---|---------------|-----------------|------------|--|
| SECTION 12: Ecological information                            |               |                 |            |  |
| phenyl]propane<br>phenol, methylstyrenated<br>Oxirane, mono [ | 3,627<br>3,77 | -<br>160 to 263 | low<br>low |  |

#### 12.4 Mobility in soil

derivatives

Soil/water partition coefficient (Koc)

(C12-C14-alkyloxy)methyl]

: Not available.

Mobility : Not available.

#### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Endocrine disrupting properties

Not available.

#### 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.

#### 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**

Yes.

## **European waste catalogue (EWC)**

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

## **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. 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  | UN3082   | UN3082   | UN3082                  | UN3082   |
| 14.2 UN proper shipping name | ENVIRONMENTALLY<br>HAZARDOUS<br>SUBSTANCE,<br>LIQUID, N.O.S. | ENVIRONMENTALLY<br>HAZARDOUS<br>SUBSTANCE,<br>LIQUID, N.O.S. | HAZARDOUS<br>SUBSTANCE, | ENVIRONMENTALLY<br>HAZARDOUS<br>SUBSTANCE,<br>LIQUID, N.O.S. |

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## **SECTION 14: Transport information**

| Ļ                                  |  |   |  |  |
|------------------------------------|--|---|--|--|
| 14.3 Transport<br>hazard class(es) | 9  | 9   | 9  | 9  |
| 14.4 Packing group                 | III  | III   | III  | III  |
| 14.5<br>Environmental<br>hazards   | Yes.   | Yes.  | Yes.   | Yes.   |
| Additional information             | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.  Tunnel code (-) | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.  Emergency schedules: F-A, S-F | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.  Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 L. Packaging instructions: 964. |

user

14.6 Special precautions for : 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 Transport in bulk according to IMO instruments

: Not available.

## **SECTION 15: Regulatory information**

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

VOC

: The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** 

IIA/i. Two-pack reactive performance coatings for specific end use such as floors. EU limit value for this product : 500g/l (2010.)

This product contains a maximum of 50 g/l VOC.

**Industrial emissions** (integrated pollution prevention and control) -Air

: Not listed

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## **SECTION 15: Regulatory information**

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

**United Kingdom: Great Britain** 

UK (GB) /REACH

**Annex XIV - List of substances subject to authorisation** 

**Annex XIV** 

None of the components are listed.

Substances of very high concern

None of the components are listed.

**Ozone depleting substances** 

Not listed.

**Prior Informed Consent (PIC)** 

Not listed.

**Persistent Organic Pollutants** 

Not listed.

Aerosol dispensers :

**Seveso Directive** 

This product is controlled under the Seveso Directive.

**Danger criteria** 

## **Category**

E2

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**International regulations** 

**Stockholm Convention on Persistent Organic Pollutants** 

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

## Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

**CN code** : 3208 90 91 00

**Inventory list** 

Australia : Not determined.
Canada : Not determined.
China : Not determined.

**Eurasian Economic Union:** Russian Federation inventory: Not determined.

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## **SECTION 15: Regulatory information**

: Japan inventory (CSCL): Not determined. **Japan** 

Japan inventory (ISHL): Not determined.

**New Zealand** : Not determined.

**Philippines** : At least one component is not listed. Republic of Korea : At least one component is not listed.

**Taiwan** : Not determined. **Thailand** : Not determined. **Turkey** : Not determined. **United States** : Not determined. **Viet Nam** : Not determined.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.

## **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]

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

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

| Classification          | Justification   |  |
|-------------------------|-----------------|--|
| Skin Irrit. 2, H315     | Expert judgment |  |
| Eye Dam. 1, H318        | Expert judgment |  |
| Skin Sens. 1, H317      | Expert judgment |  |
| Aquatic Chronic 2, H411 | Expert judgment |  |

### Full text of abbreviated H statements

### **United Kingdom: Great Britain**

Full text of abbreviated H statements

| H226   | Flammable liquid and vapour.   |
|--------|--|
| H302   | Harmful if swallowed.  |
| H304   | May be fatal if swallowed and enters airways.  |
| H312   | Harmful in contact with skin.  |
| H315   | Causes skin irritation.  |
| H317   | May cause an allergic skin reaction.   |
| H318   | Causes serious eye damage.   |
| H319   | Causes serious eye irritation.   |
| H332   | Harmful if inhaled.  |
| H335   | May cause respiratory irritation.  |
| H336   | May cause drowsiness or dizziness.   |
| H411   | Toxic to aquatic life with long lasting effects.                                     |
| H412   | Harmful to aquatic life with long lasting effects.                                   |
| EUH066 | Repeated exposure may cause skin dryness or cracking.                                |
|        | H304<br>H312<br>H315<br>H317<br>H318<br>H319<br>H332<br>H335<br>H336<br>H411<br>H412 |

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## **SECTION 16: Other information**

Full text of classifications
[CLP/GHS]

Acute Tox. 4 ACUTE TOXICITY - Category 4
Aquatic LONG-TERM (CHRONIC) AQUA

Aquatic LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 Chronic 2

Aquatic LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Chronic 3
Asp. Tox. 1 ASPIRATION HAZARD - Category 1

Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3

Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1 SKIN SENSITISATION - Category 1 Skin Sens. 1A SKIN SENSITISATION - Category 1A

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -

Category 3

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: 24/11/2022

revision

Version : 4

**Notice to reader** 

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.