SAFETY DATA SHEET

United Arab Emirates

Date of issue/Date of revision

: 20 March 2024

Version

: 2.01

| SECTION 1: Identifi undertaking | cation of the substance/mixture and of the company/ |
|---|---|
| 1.1 Product identifier | |
| Product name | : SIGMASHIELD 1090 BASE RAL 1004 |
| Product code | : 00268075 |
| Other means of identifica Not available. | tion |
| 1.2 Relevant identified use | s 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 | of the safety data sheet |
| Sigma Paint Saudi Arabia L PO Box 7509 Dammam 31472 Saudi Arabia | td. |
| Tel: 00966 138 47 31 00 Fax: 00966 138 47 17 34 | |
| e-mail address of person responsible for this SDS | : ndpic@sfda.gov.sa |
| 1.4 Emergency telephone number | : 00966 138473100 extn 1001 |

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 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.

2.2 Label elements Hazard pictograms



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SECTION 2: Hazards identification

| Signal word | : Warning |
|---|--|
| Hazard statements | Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects. Harmful to aquatic life with long lasting effects. |
| Precautionary statements | |
| Prevention | : Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid release to the environment. Avoid breathing vapour. |
| 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. P202, P280, P273, P261, P308 + P313, P501 |
| Hazardous ingredients | Image: Second Science Ima |
| Supplemental label elements | : Contains epoxy constituents. May produce an allergic reaction. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Not applicable. |
| Special packaging requiren | <u>nents</u> |
| Containers to be fitted with child-resistant fastenings | : Not applicable. |
| Tactile warning of danger | : Not applicable. |
| 2.3 Other hazards | |
| Product meets the criteria for PBT or vPvB | : 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 | | | | |
|---|--|-------------|--|---|------|
| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Туре |
| øís-[4-(2,3-epoxipropoxi) phenyl]propane | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | ≥10 - ≤21 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5% | [1] |
| 2,3-epoxypropyl | REACH #: | ≥1.0 - ≤3.8 | Skin Sens. 1, H317 | - | [1] |
| | | English | (GB) United Arab E | mirates | 2/14 |

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SECTION 3: Composition/information on ingredients

| neodecanoate | 01-2119431597-33 | | Muta. 2, H341 | | |
|---|---|-------------|---|---|---------|
| | EC: 247-979-2 CAS: 26761-45-5 | | Aquatic Chronic 2, H411 | | |
| benzyl alcohol | REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5 | ≥1.0 - ≤5.0 | Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319 | ATE [Oral] = 1230 mg/ kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l | [1] [2] |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | REACH #: 01-2119979085-27 EC: 309-629-8 CAS: 100545-48-0 | ≤0.30 | Skin Sens. 1B, H317 Aquatic Chronic 3, H412 | - | [1] |
| | | | See Section 16 for the full text of the H statements declared 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.

Туре

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

| Eye contact | : | Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
|----------------------------|---|---|
| Inhalation | : | Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | 1 | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | 1 | 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 effect | <u>s</u> |
|-------------------------------|--|
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Causes skin irritation. May cause an allergic skin reaction. |
| Ingestion | : No known significant effects or critical hazards. |
| Over-exposure signs/sympt | <u>oms</u> |
| Eye contact | : Adverse symptoms may include the following: pain or irritation watering redness |

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SECTION 4: First aid measures

| Inhalation | : No specific data. |
|---------------------------|---|
| Skin contact | : Adverse symptoms may include the following: irritation redness |
| Ingestion | : No specific data. |
| 4.3 Indication of any imm | ediate 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 fi | om 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 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. |
| Hazardous combustion products | : Decomposition products may include the following materials: carbon oxides metal oxide/oxides |
| 5.3 Advice for firefighters | |
| Special precautions for fire-fighters | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

| 6.1 Personal precautions, pro | tective 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| 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. |

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SECTION 6: Accidental release measures

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

| Protective measures | : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. 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. 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 between the following temperatures: 0 to 35°C (32 to 95°F). 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. |

7.3 Specific end use(s) See Section 1.2 for Identified uses.

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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/ingredier | nt name | Exposure limit values | | | | |
|---|--|---|-----|--|--|--|
| Frystalline silica, respirable powder (>10 microns) | | Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). TWA: 0.1 mg/m³ 8 hours. Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [silica (inhalable particle)/ (respirable particulate)] TWA: 10 mg/m³ 8 hours. Form: inhalable particle TWA: 3 mg/m³ 8 hours. Form: respirable particulate Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [guartz silica crystalline–α-quartz and cristobalite] TWA: 0.025 mg/m³ 8 hours. Form: measured as respirable fraction of the aerosol ACGIH TLV (United States, 1/2023). [Silica, crystalline] Notes: Respirable fraction; see Appendix C, paragraph C. TWA: 0.025 mg/m³ 8 hours. Form: Respirable | | | | |
| Recommended monitoring procedures | Reference should be made to monitoring standards, such as the following: Europe Standard EN 689 (Workplace atmospheres - Guidance for the assessment of experience 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 determinat of hazardous substances will also be required. | | | | | |
| .2 Exposure controls | | | | | | |
| Appropriate engineering controls | local exhaust ver | s generate dust, fumes, gas, vapour or mist, use process enclosur ntilation or other engineering controls to keep worker exposure to inants below any recommended or statutory limits. | es, | | | |
| Individual protection measur | <u>es</u> | | | | | |
| Hygiene measures | eating, smoking a Appropriate tech Contaminated wo contaminated clo | earms and face thoroughly after handling chemical products, befor and using the lavatory and at the end of the working period. niques should be used to remove potentially contaminated clothing ork clothing should not be allowed out of the workplace. Wash othing before reusing. Ensure that eyewash stations and safety se to the workstation location. | | | | |
| Eye/face protection <u>Skin protection</u> | : Chemical splash | goggles. | | | | |
| Hand protection | worn at all times necessary. Cons during use that th noted that the tim glove manufactur protection time of frequently repeat (breakthrough tin | stant, impervious gloves complying with an approved standard should be es when handling chemical products if a risk assessment indicates this is onsidering the parameters specified by the glove manufacturer, check it the gloves are still retaining their protective properties. It should be time to breakthrough for any glove material may be different for different cturers. In the case of mixtures, consisting of several substances, the e of the gloves cannot be accurately estimated. When prolonged or eated contact may occur, a glove with a protection class of 6 time greater than 480 minutes according to EN 374) is recommended. ef contact is expected, a glove with a protection class of 2 or higher | | | | |
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| | | (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 protec | ction | 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. |
| Other skin p | 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 p | protection | |
| Environment controls | al exposure | 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

| Appearance | | | | | | | | | |
|--|---|--|-----------|-------|------------|-----------|------------|-------------------------|----------|
| Physical state | : | Liquid. | | | | | | | |
| Colour | : | Yellow. | | | | | | | |
| Odour | : | Aromatic. | | | | | | | |
| Odour threshold | : | Not available. | | | | | | | |
| Melting point/freezing point | : | May start to solidify at the following temperature: 8 to 12° C (46.4 to 53.6° F) This is based on data for the following ingredient: bis-[4-(2,3-epoxipropoxi)phenyl]propane. Weighted average: -3.81°C (25.1°F) | | | | | | | |
| Initial boiling point and boiling range | : | >37.78°C | | | | | | | |
| Flammability | : | Not available. | | | | | | | |
| Upper/lower flammability or explosive limits | : | Greatest known rang | e: Lower: | 1.3% | 6 Upper: 1 | 3% (be | nzyl alcc | ohol) | |
| Flash point | : | Closed cup: Not appl | icable. | | | | | | |
| Auto-ignition temperature | : | Ingredient name | | °(| C | °F | N | Method | |
| | | 2,3-epoxypropyl neodeca | noate | 276 | 3 | 528.8 | | | |
| Decomposition temperature | ÷ | Stable under recomm | nended st | orade | e and hand | llina cor | nditions (| (see Sec | tion 7). |
| рН | ÷ | Not applicable. insolu | | • | | 5 | · | N | , |
| Viscosity | ÷ | Kinematic (40°C): >2 | | | | | | | |
| Solubility(ies) | : | | | | | | | | |
| Media | | Result | | | | | | | |
| cold water | | Not soluble | | | | | | | |
| Partition coefficient: n-octanol/ water | : | Not applicable. | | | | | | | |
| Vapour pressure | | | | | | | Vapo | Vapour pressure at 50°C | |
| | | Ingredient name | mm Hg | kPa | Meth | nod | mm Hg | kPa | Method |
| | | 2,3-epoxypropyl neodecanoate | 0.11251 | 0.015 | | | | | |

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| Conforms to Regulation (E0 2020/878 | C) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) |
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| SECTION 9: Physic | al and chemical properties |
| Evaporation rate | : 0.007 (benzyl alcohol) compared with butyl acetate |
| Relative density | : 2.02 |
| Vapour density | Fighest known value: 11.7 (Air = 1) (bis-[4-(2,3-epoxipropoxi)phenyl]propane). Weighted average: 10.89 (Air = 1) |
| Explosive properties | The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible. |
| Oxidising properties | : Product does not present an oxidizing hazard. |
| Particle characteristics | |
| Median particle size | : Not applicable. |
| 9.2 Other information | |
| No additional information. | |
| SECTION 10: Stabil | ity 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. |

| 10.6 Hazardous | : Depending on conditions, decomposition products may include the following materials: |
|------------------------|--|
| decomposition products | carbon oxides metal oxide/oxides |

oxidising agents, strong alkalis, strong acids.

Refer to protective measures listed in sections 7 and 8.

: Under normal conditions of storage and use, hazardous reactions will not occur.

: Keep away from the following materials to prevent strong exothermic reactions:

: When exposed to high temperatures may produce hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

10.3 Possibility of

hazardous reactions

10.4 Conditions to avoid

10.5 Incompatible materials

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------|---------|---|----------|
| s-[4-(2,3-epoxipropoxi)phenyl]propane | LD50 Dermal | Rabbit | 23000 mg/kg | - |
| | LD50 Oral | Rat | 15000 mg/kg | - |
| 2,3-epoxypropyl neodecanoate | LD50 Dermal | Rat | 3800 mg/kg | - |
| | LD50 Oral | Rat | 9.6 g/kg | - |
| benzyl alcohol | LC50 Inhalation Dusts and | Rat | >4178 mg/m ³ | 4 hours |
| | mists | | | |
| | LD50 Dermal | Rabbit | 2000 mg/kg | - |
| | LD50 Oral | Rat | 1.23 g/kg | - |
| Octadecanoic acid, 12-hydroxy-, reaction | LC50 Inhalation Dusts and | Rat | 5.05 mg/l | 4 hours |
| products with ethylenediamine | mists | | , i i i i i i i i i i i i i i i i i i i | |
| | LD50 Oral | Rat | >2000 mg/kg | - |

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

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SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---------------------------------------|------------------------------------|---------|-------|----------|-------------|
| s-[4-(2,3-epoxipropoxi)phenyl]propane | Eyes - Mild irritant | Rabbit | - | 24 hours | - |
| | Eyes - Redness of the conjunctivae | Rabbit | 0.4 | 24 hours | - |
| | Skin - Oedema | Rabbit | 0.5 | 4 hours | - |
| | Skin - Erythema/Eschar | Rabbit | 0.8 | 4 hours | - |
| | Skin - Mild irritant | Rabbit | - | 4 hours | - |

Conclusion/Summary

: There are no data available on the mixture itself.

Skin Eyes

: There are no data available on the mixture itself. : There are no data available on the mixture itself.

Respiratory **Sensitisation**

| Product/ingr | edient name | Route of exposure | Species | Result |
|---|---|----------------------|---------------------|----------------------------|
| ofs-[4-(2,3-epoxipropoxi)ph Octadecanoic acid, 12-hyd ethylenediamine | enyl]propane roxy-, reaction products with | skin skin | Mouse Guinea pig | Sensitising Sensitising |
| Conclusion/Summary | | | | · |
| Skin | : There are no data ava | ilable on the mixtur | e itself. | |
| Respiratory | : There are no data ava | ilable on the mixtur | e itself. | |
| <u>Mutagenicity</u> | | | | |
| Conclusion/Summary | : There are no data ava | ilable on the mixtur | e itself. | |
| Carcinogenicity | | | | |
| Conclusion/Summary | : There are no data ava | ilable on the mixtur | e itself. | |
| Reproductive toxicity | | | | |
| Conclusion/Summary | : There are no data ava | ilable on the mixtur | e itself. | |
| Teratogenicity | | | | |
| Conclusion/Summary | : There are no data ava | ilable on the mixtur | e itself. | |
| <u>Specific target organ toxi</u> | <u>city (single exposure)</u> | | | |
| Not available. | | | | |
| Specific target organ toxi | <u>city (repeated exposure)</u> | | | |
| Not available. | | | | |
| Aspiration hazard | | | | |
| Not available. | | | | |
| | . | | | |
| nformation on likely routes of exposure | : Not available. | | | |
| | | | | |
| Potential acute health effe | | footo or critical bo | zarda | |
| | : No known significant e | | | |
| Ingestion | : No known significant e | | | |
| Skin contact | : Causes skin irritation. | | rgic skin reaction. | |
| Eye contact | : Causes serious eye in | | | |
| | physical, chemical and tox | icological charact | <u>eristics</u> | |
| Inhalation | : No specific data. | | | |
| Ingestion | : No specific data. | | | |

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| SECTION 11: Toxico | ological information |
| Skin contact | : Adverse symptoms may include the following: irritation redness |
| Eye contact | : Adverse symptoms may include the following: pain or irritation watering redness |
| Delayed and immediate eff | ects as well as chronic effects from short and long-term exposure |
| Short term exposure | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | Si : Not available. |
| Long term exposure | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | S : Not available. |
| Potential chronic health ef | <u>fects</u> |
| Not available. | |
| Conclusion/Summary | : Not available. |
| 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 | : Suspected of causing genetic defects. |
| Reproductive toxicity | : No known significant effects or critical hazards. |
| Other information | : Not available. |
| irritation of the respiratory sy | may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause stem and permanent brain and nervous system damage. Inhalation of vapour/aerosol commended exposure limits causes headaches, drowsiness and nausea and may lead to |

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 |
|---|---------------------------|--------------------------|----------|
| pís-[4-(2,3-epoxipropoxi)phenyl]propane | Acute LC50 1.8 mg/l Fresh | Daphnia - <i>daphnia</i> | 48 hours |
| | water | magna | |
| | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |
| 2,3-epoxypropyl neodecanoate | Acute EC50 3.5 mg/l | Algae | 96 hours |
| | Acute EC50 4.8 mg/l | Daphnia - <i>Daphnia</i> | 48 hours |
| | | magna | |
| | Acute LC50 9.6 mg/l | Fish - Oncorhynchus | 96 hours |
| | C C | mykiss | |
| Octadecanoic acid, 12-hydroxy-, reaction products | Acute EC50 >100 mg/l | Algae - | 72 hours |
| with ethylenediamine | C C | Pseudokirchneriella | |
| | | subcapitata | |
| | Acute EC50 >10 mg/l | Daphnia - Daphnia | 48 hours |
| | | magna | |
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| SIGMASHIELD 1090 BASE RAL 1004 | | | | | | | |
| SECTION 12: Ecological information | | | | | | | |
| | Acute LC50 >10 mg/l | Fish - Oncorhynchus mykiss | 96 hours | | | | |

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | | Dose | Inoculum |
|--|---|--------------------------|------------------|-------|---|
| Øctadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | 301D Ready Biodegradability - Closed Bottle Test | 22 % - 28 days | | - | - |
| Conclusion/Summary | : There are no dat | a available on the mixtu | re itself. | • | • |
| Product/ingredient name | | Aquatic half-life | Photo | lysis | Biodegradability |
| bi s-[4-(2,3-epoxipropoxi)pher 2,3-epoxypropyl neodecanoa benzyl alcohol Octadecanoic acid, 12-hydro with ethylenediamine | te | - - - - | - - - - | | Not readily Not readily Readily Inherent |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---|----------------------|--------|---------------------|
| ₹,3-epoxypropyl neodecanoate benzyl alcohol Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | 4.4 0.87 >5.86 | - - | High Low High |

12.4 Mobility in soil

| Soil/water partition | : Not available. |
|----------------------|------------------|
| coefficient (Koc) | |
| 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. 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

| Conforms to Regulation (EC 2020/878 |) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) |
|-------------------------------------|---|
| Code : 00268075 | Date of issue/Date of revision : 20 March 2024 |
| SIGMASHIELD 1090 BASE R | AL 1004 |
| SECTION 13: Dispos | sal considerations |
| Methods of disposal | : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| Hazardous waste | : Yes. |
| European waste catalogu | e (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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |
| SECTION 14: Transp | oort information |

| | ADR/RID | IMDG | IATA |
|------------------------------------|-----------------|-----------------|-----------------|
| 14.1 UN number or ID number | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

Additional information

| ADR/RID | : None identified. |
|---------|--------------------|
| IMDG | : None identified. |
| IATA | : None identified. |

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: Not applicable.according to IMOinstruments

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SECTION 15: Regulatory information

| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture |
|---|
| EU Regulation (EC) No. 1907/2006 (REACH) |
| Annex XIV - List of substances subject to authorisation |
| Annex XIV |
| None of the components are listed. |
| Substances of very high concern |
| None of the components are listed. |
| Annex XVII - Restrictions : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles |
| Other national and international regulations. |
| Explosive precursors : Not applicable. |
| Ozone depleting substances (1005/2009/EU) |
| Not listed. |
| 15.2 Chemical safety : No Chemical Safety Assessment has been carried out. assessment |

SECTION 16: Other information

Indicates information that has changed from previously issued version.

| Version | : 2.01 |
|--|--|
| Prepared by | : EHS |
| Date of previous issue | : 8 November 2022 |
| <u>History</u> Date of issue/ Date of revision | : 20 March 2024 |
| [CLP/GHS] | Aquatic Chronic 2LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2Aquatic Chronic 3LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3Eye Irrit. 2SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2Muta. 2GERM CELL MUTAGENICITY - Category 2Skin Irrit. 2SKIN CORROSION/IRRITATION - Category 2Skin Sens. 1SKIN SENSITISATION - Category 1Skin Sens. 1BSKIN SENSITISATION - Category 1B |
| statements Full text of classifications | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H341 Suspected of causing genetic defects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. : Acute Tox. 4 ACUTE TOXICITY - Category 4 |
| acronyms Full text of abbreviated H | 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 : H302 Harmful if swallowed. |
| Abbreviations and | : ATE = Acute Toxicity Estimate |

Code : 00268075

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SECTION 16: Other information

<u>Disclaimer</u>

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.