SAFETY DATA SHEET

Date of issue/Date of revision : 19 February 2024 : 1.02 Version



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

1.1 Product identifier

Product name : SIGMARINE 290 REDBROWN

Product code : 000001117995

Other means of identification

00218998

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

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Antifouling products

Uses advised against

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

1.3 Details of the supplier of the safety data sheet

Sigma Paint Saudi Arabia Ltd.

PO Box 7509 **Dammam 31472** Saudi Arabia

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]

Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361d Aquatic Acute 1, H400

Aquatic Chronic 1, H410

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

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 2: Hazards identification

Hazard pictograms











Signal word : Danger

: Flammable liquid and vapour. **Hazard statements**

> Harmful if swallowed. Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye damage.

Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves, protective clothing and eye or face protection. Keep away from

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid

release to the environment.

Response : Collect spillage. IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Storage Not applicable.

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

international regulations.

P280, P210, P273, P391, P305 + P351 + P338, P501

: dicopper oxide **Hazardous ingredients**

rosin

5-methylhexan-2-one

4,5-dichloro-2-octyl-2H-isothiazol-3-one

1,3-bis[12-hydroxy-octadecamide-N-methylene]-benzene

Cashew, nutshell liq. octhilinone (ISO)

Supplemental label

elements

: 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

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 : Prolonged or repeated contact may dry skin and cause irritation.

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| 3.2 Mixtures | : Mixture | | | | |
|--|--|-------------|--|--|---------|
| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Туре |
| dicopper oxide | REACH #: 01-2119513794-36 EC: 215-270-7 CAS: 1317-39-1 Index: 029-002-00-X | ≥25 - ≤43 | Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | ATE [Oral] = 500 mg/ kg ATE [Inhalation (dusts and mists)] = 3.34 mg/l M [Acute] = 100 M [Chronic] = 10 | [1] [2] |
| rosin | REACH #: 01-2119480418-32 EC: 232-475-7 CAS: 8050-09-7 Index: 650-015-00-7 | ≥10 - ≤25 | Skin Sens. 1, H317 | - | [1] [2] |
| xylene | EC: 215-535-7 CAS: 1330-20-7 | ≥10 - <20 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l | [1] [2] |
| zinc oxide | REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7 | ≥5.0 - ≤10 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 1 M [Chronic] = 1 | [1] |
| 5-methylhexan-2-one | REACH #: 01-2119472300-51 EC: 203-737-8 CAS: 110-12-3 Index: 606-026-00-4 | ≥5.0 - ≤10 | Flam. Liq. 3, H226 Acute Tox. 4, H332 Repr. 2, H361d (inhalation) | ATE [Inhalation (gases)] = 5000 ppm | [1] [2] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | ≥1.0 - ≤5.0 | Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Inhalation (vapours)] = 17.8 mg/l | [1] [2] |
| copper(II) oxide | REACH #: 01-2119502447-44 EC: 215-269-1 CAS: 1317-38-0 Index: 029-016-00-6 | ≥1.0 - ≤5.0 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 100 M [Chronic] = 10 | [1] |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | EC: 264-843-8 CAS: 64359-81-5 Index: 613-335-00-8 | <1.0 | Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 | ATE [Oral] = 567 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (dusts and mists)] = 0.16 mg/l Skin Corr. 1, H314: C | [1] |

English (GB)

United Arab Emirates

3/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 3: Composition/information on ingredients

| SECTION 3. Comp | OsitiOii/iiiiOiiiiai | | ngrealents | | |
|--|---|---------|---|--|---------|
| | | | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071 | ≥ 5% Skin Irrit. 2, H315: 0.025% ≤ C < 5% Eye Dam. 1, H318: C ≥ 3% Eye Irrit. 2, H319: 0.025% ≤ C < 3% Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100 | |
| copper | REACH #: 01-2119480154-42 EC: 231-159-6 CAS: 7440-50-8 | <1.0 | Aquatic Acute 1, H400 Aquatic Chronic 3, H412 | M [Acute] = 1 | [1] |
| 1,3-bis[12-hydroxy- octadecamide-N- methylene]-benzene | REACH #: 01-2119962189-26 CAS: 911674-82-3 Index: 616-198-00-2 | <1.0 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 | - | [1] [2] |
| Cashew, nutshell liq. | EC: 232-355-4 CAS: 8007-24-7 | <1.0 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 | ATE [Oral] = 500 mg/ kg ATE [Dermal] = 1100 mg/kg | [1] |
| octhilinone (ISO) | EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5 | <0.0010 | Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071 | ATE [Oral] = 125 mg/kg ATE [Dermal] = 311 mg/kg ATE [Inhalation (dusts and mists)] = 0.27 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100 | [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.

- [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.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

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.

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 4: First aid measures

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

stomach pains reduced foetal weight

increase in foetal deaths skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

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

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

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

Unsuitable extinguishing

media

: Do not use water jet.

English (GB) United Arab Emirates 5/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 5: Firefighting measures

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

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

Hazardous combustion products

: Decomposition products may include the following materials: carbon oxides

metal oxide/oxides oxides of lead

5.3 Advice for firefighters

Special precautions for fire-fighters

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

Special protective equipment for fire-fighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

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

6.4 Reference to other sections

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

English (GB) United Arab Emirates 6/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024
SIGMARINE 290 REDBROWN

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

Protective measures

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

Advice on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------|--|
| ₫copper oxide | Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [copper fume] TWA: 0.2 mg/m³ 8 hours. Form: fumes ACGIH TLV (United States, 1/2023). [Copper Fume] |
| rosin | TWA: 0.2 mg/m³ 8 hours. Form: Fume Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). Skin sensitiser. Inhalation sensitiser. |
| | ACGIH TLV (United States, 1/2023). [resin acids as total Resin |

English (GB)

United Arab Emirates

7/18

fraction

xylene

Abu Dhabi - OSHAD - Occupational air quality the

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [xylene (o, m & p isomers)]

STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). [xylene (all isomers)]

STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.

TWA: 20 ppm 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 5 mg/m³ 8 hours. Form: fumes STEL: 10 mg/m³ 15 minutes. Form: fumes

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

STEL: 10 mg/m³ 15 minutes. Form: measured as respirable fraction of the aerosol and fume

TWA: 2 mg/m³ 8 hours. Form: measured as respirable fraction of the aerosol and fume

ACGIH TLV (United States, 1/2023). Notes: Respirable fraction; see Appendix C, paragraph C. ACGIH 2003 Adoption

STEL: 10 mg/m 3 15 minutes. Form: Respirable fraction TWA: 2 mg/m 3 8 hours. Form: Respirable fraction

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

TWA: 234 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 234 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

ACGIH TLV (United States, 1/2023).

TWA: 93 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. STEL: 234 mg/m³ 15 minutes.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

TWA: 5 mg/m³ 8 hours. Form: measured as respirable fraction of the aerosol

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 5 mg/m³ 8 hours.

ACGIH TLV (United States, 1/2023). Notes: Refers to Appendix B -- Substances of Variable Composition. Respirable fraction; see Appendix C, paragraph C.

TWA: 5 mg/m³ 8 hours. Form: Respirable fraction

Abu Dhabi - OSHAD - Occupational air quality threshold limit

zinc oxide

5-methylhexan-2-one

diiron trioxide

Talc, not containing asbestiform fibres

English (GB) United Arab Emirates

8/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024
SIGMARINE 290 REDBROWN

values (United Arab Emirates, 7/2016).

TWA: 2 mg/m³ 8 hours. Form: measured as respirable fraction of

the aerosol

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 2 mg/m³ 8 hours.

ACGIH TLV (United States, 1/2023).
TWA: 2 mg/m³ 8 hours. Form: Respirable

Abu Dhabi - OSHAD - Occupational air quality threshold limit

values (United Arab Emirates, 7/2016).

STEL: 543 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

STEL: 125 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 543 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 1/2023). Ototoxicant. Notes: Substances for which there is a Biological Exposure Index or

Indices 2002 Adoption. TWA: 20 ppm 8 hours.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [copper fume]

TWA: 0.2 mg/m³ 8 hours. Form: fumes

ACGIH TLV (United States, 1/2023). [Copper Fume]

TWA: 0.2 mg/m³ 8 hours. Form: Fume

Recommended monitoring procedures

ethylbenzene

copper oxide

: 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.

8.2 Exposure controls

Appropriate engineering controls

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

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
Skin protection

: Chemical splash goggles and face shield.

Hand protection

English (GB) United Arab Emirates

Code : 000001117995 Date of issue/Date of revision : 19 February 2024 SIGMARINE 290 REDBROWN

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

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before

handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Appropriate footwear and any additional skin protection measures should be selected Other skin protection based on the task being performed and the risks involved and should be approved by a

specialist before handling this product.

Respiratory protection

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

Appearance

Physical state : Liquid.

: Brownish-red. Colour : Aromatic. Odour Not available. Odour threshold

Melting point/freezing point : May start to solidify at the following temperature: -74°C (-101.2°F) This is based on

data for the following ingredient: 5-methylhexan-2-one. Weighted average: -87.91°C

(-126.2°F)

Initial boiling point and

boiling range

: >37.78°C

Flammability : Not available.

Upper/lower flammability or

explosive limits

pН

: Greatest known range: Lower: 1.8% Upper: 9% (5-methylhexan-2-one)

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

Flash point Closed cup: 36°C

Auto-ignition temperature Ingredient name °F Method 5-methylhexan-2-one 752 EU A.15

Decomposition temperature

Not applicable.

Kinematic (40°C): >21 mm²/s **Viscosity**

English (GB) **United Arab Emirates** 10/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 9: Physical and chemical properties

Solubility(ies)

Media Result cold water Not soluble

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

| Ingradient name | Vapour Pressure at 20°C | | | Vapour pressure at 5 | | |
|-----------------|-------------------------|-----|--------|----------------------|-----|--------|
| Ingredient name | mm Hg | kPa | Method | mm Hg | kPa | Method |
| ethylbenzene | 9.30076 | 1.2 | | | | |

: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.67compared with **Evaporation rate**

butyl acetate

: 1.79 Relative density

Vapour density : Highest known value: 3.9 (Air = 1) (5-methylhexan-2-one). Weighted average:

3.77 (Air = 1)

: The product itself is not explosive, but the formation of an explosible mixture of **Explosive properties**

: Product does not present an oxidizing hazard.

vapour or dust with air is possible.

Oxidising properties

Particle characteristics Median particle size

: Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

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

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

Refer to protective measures listed in sections 7 and 8.

: Keep away from the following materials to prevent strong exothermic reactions: 10.5 Incompatible materials

oxidising agents, strong alkalis, strong acids.

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

English (GB) United Arab Emirates 11/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------|---------|---|----------|
| dicopper oxide | LC50 Inhalation Dusts and | Rat | 3.34 mg/l | 4 hours |
| | mists | | | |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 500 mg/kg | - |
| rosin | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 7600 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | _ |
| , | LD50 Oral | Rat | 4.3 g/kg | - |
| zinc oxide | LC50 Inhalation Dusts and | Rat | >5700 mg/m ³ | 4 hours |
| | mists | | J | |
| | LD50 Dermal | Rat | >2000 mg/kg | _ |
| | LD50 Oral | Rat | >5000 mg/kg | _ |
| 5-methylhexan-2-one | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| , | LD50 Dermal | Rabbit | 8.14 g/kg | - |
| | LD50 Oral | Rat | 5657 mg/kg | _ |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
| , | LD50 Dermal | Rabbit | 17.8 g/kg | _ |
| | LD50 Oral | Rat | 3.5 g/kg | _ |
| copper oxide | LD50 Oral | Rat | >2000 mg/kg | _ |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | LC50 Inhalation Dusts and | Rat | 0.16 mg/l | 4 hours |
| , | mists | | 3 | |
| | LD50 Dermal | Rabbit | 3.9 g/kg | _ |
| | LD50 Oral | Rat | 567 mg/kg | _ |
| copper | LC50 Inhalation Dusts and | Rat | >5.11 mg/l | 4 hours |
| ** | mists | | J | |
| Reaction products of | LC50 Inhalation Dusts and | Rat | >5.08 mg/l | 4 hours |
| 12-hydroxyoctadecanoic acid and | mists | | 3.33 | |
| octadecanoic acid and | 1111222 | | | |
| 1,3-phenylenedimethanamine | | | | |
| octhilinone (ISO) | LC50 Inhalation Dusts and | Rat | 0.27 mg/l | 4 hours |
| - () | mists | | - · · · · · · · · · · · · · · · · · · · | |
| | LD50 Dermal | Rabbit | 311 mg/kg | _ |
| | LD50 Oral | Rat | 125 mg/kg | _ |

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| ⋉ ylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |

Conclusion/Summary

Skin: There are no data available on the mixture itself.Eyes: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|---------|-------------|
| octhilinone (ISO) | skin | Mouse | Sensitising |

Conclusion/Summary

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

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

| English (GB) | United Arab Emirates | 12/18 |
|--------------|----------------------|-------|
| | | |

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 11: Toxicological information

Conclusion/Summary: There are no data available on the mixture itself.

Reproductive toxicity

| Product/ingredient name | Maternal toxicity | Fertility | Developmental toxin | Species | Dose | Exposure |
|-------------------------|-------------------|-----------|---------------------|---------|-------------------------|----------|
| 5-methylhexan-2-one | - | - | Equivocal | Rabbit | Inhalation: 1250 ppm | - |

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|--------------------------|-------------------|---|
| | Category 3 Category 3 | - | Respiratory tract irritation Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

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

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

Skin contact: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

stomach pains reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

pain or irritation redness

redness dryness cracking

blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations

English (GB) United Arab Emirates 13/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 11: Toxicological information

Eye contact : Adverse symptoms may include the following:

pain watering redness

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

Short term exposure

Potential immediate

footo

: 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: Not available.

General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or

dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently

exposed to very low levels.

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

Reproductive toxicity: Suspected of damaging the unborn child.

Other information : Not available.

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---------------------------|--------------------|----------|
| dicopper oxide | LC50 0.003 mg/l | Fish | 96 hours |
| zinc oxide | Acute EC50 0.17 mg/l | Algae | 72 hours |
| | Acute EC50 0.481 mg/l | Daphnia - Daphnia | 48 hours |
| | Fresh water | magna - Neonate | |
| | Chronic NOEC 0.017 mg/l | Algae | 72 hours |
| | Fresh water | | |
| 5-methylhexan-2-one | Acute LC50 159 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh | Daphnia | 48 hours |
| - | water | · | |
| | Chronic NOEC 1 mg/l Fresh | Daphnia - | - |
| | water | Ceriodaphnia dubia | |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | Acute EC50 267.368 µg/l | Algae - Nitzschia | 96 hours |
| • | Marine water | pungens | |
| | Acute LC50 0.318 mg/l | Crustaceans - | 48 hours |
| | Marine water | Artemia sp. | |

English (GB) United Arab Emirates 14/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024
SIGMARINE 290 REDBROWN

SECTION 12: Ecological information

| | Acute LC50 0.0027 mg/l | Fish | 96 hours |
|--|---------------------------|--------------------------|----------|
| | Fresh water | | |
| | Chronic NOEC 19.789 µg/l | Algae - <i>Nitzschia</i> | 96 hours |
| | Marine water | pungens | |
| | Chronic NOEC 0.00056 mg/l | Fish | 97 days |
| | Fresh water | | - |
| copper | Acute LC50 810 ppb | Fish | 96 hours |
| | Chronic EC10 8.1 µg/l | Daphnia - Daphnia | 21 days |
| | | magna - Neonate | |
| Reaction products of 12-hydroxyoctadecanoic acid | Acute LC50 >100 mg/l | Fish | 96 hours |
| and octadecanoic acid and | | | |
| 1,3-phenylenedimethanamine | | | |

Conclusion/Summary: There are no data available on the mixture itself.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|----------------------------------|------|--|------|----------|
| 5-methylhexan-2-one ethylbenzene | | 67 % - Readily - 28 days 79 % - Readily - 10 days | - | - |

Conclusion/Summary: There are no data available on the mixture itself.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| x ylene | - | - | Readily |
| 5-methylhexan-2-one | - | - | Readily |
| ethylbenzene | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|------------|-------------|-----------|
| rosin rosin | 1.9 to 7.7 | - | High |
| xylene | 3.12 | 7.4 to 18.5 | Low |
| 5-methylhexan-2-one | 1.88 | - | Low |
| ethylbenzene | 3.6 | 79.43 | Low |
| Cashew, nutshell liq. | >4.78 | - | High |
| octhilinone (ISO) | 2.45 | - | Low |

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.

| English (GB) | United Arab Emirates | 15/18 |
|--------------|----------------------|-------|
|--------------|----------------------|-------|

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

Methods of disposal

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

European waste catalogue (EWC)

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

Packaging

Methods of disposal

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

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

Special precautions

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

SECTION 14: Transport information

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

Additional information

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

≤5 kg.

Tunnel code : (D/E)

English (GB) United Arab Emirates 16/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024

SIGMARINE 290 REDBROWN

SECTION 14: Transport information

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

: The environmentally hazardous substance mark may appear if required by other transportation **IATA**

regulations.

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 applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.

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

Other national and international regulations.

: Not applicable. **Explosive precursors** Ozone depleting substances (1005/2009/EU)

Not listed.

15.2 Chemical safety

assessment

: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and

acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Full text of abbreviated H

statements

Highly flammable liquid and vapour. : H225 Flammable liquid and vapour. H226

Toxic if swallowed. H301

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

Toxic in contact with skin. H311 Harmful in contact with skin. H312

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

> English (GB) **United Arab Emirates** 17/18

Code : 000001117995 Date of issue/Date of revision : 19 February 2024
SIGMARINE 290 REDBROWN

SECTION 16: Other information

| H318 | Causes serious eye damage. |
|------|-------------------------------|
| H319 | Causes serious eve irritation |

H330 Fatal if inhaled. H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

EUH071 Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS]

: Acute Tox. 2 ACUTE TOXICITY - Category 2
Acute Tox. 3 ACUTE TOXICITY - Category 3
Acute Tox. 4 ACUTE TOXICITY - Category 4

Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Aquatic Chronic 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

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

Flam. Liq. 2
Flam. Liq. 3
FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3
FLAMMABLE LIQUIDS - Category 3
Repr. 2
Skin Corr. 1
Skin Corr. 1
Skin Irrit. 2
SKIN CORROSION/IRRITATION - Category 2

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

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE - Category 2

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE

EXPOSURE - Category 3

History

Date of issue/ Date of

revision

: 19 February 2024

Date of previous issue : 25 November 2022

Prepared by : EHS Version : 1.02

Disclaimer

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