

SAFETY DATA SHEET



Date of issue/Date of revision

: 25 October 2023

Version

: 1.01

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

1.1 Product identifier

Product name : SIGMARINE 48 REDBROWN
Product code : 00437429
Product description :
Product type : Liquid.
Other means of identification : Not available.

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

Product use : Professional applications, Used by spraying.
Use of the substance/mixture : Coating.
Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL
Tweemontstraat 104
B-2100 Deurne
Belgium
Telephone +32-33606311
Fax +32-33606435

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

1.4 Emergency telephone number


Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture
Classification according to UK CLP/GHS

 Flam. Liq. 3, H226
Carc. 1B, H350
Repr. 1B, H360D
STOT SE 3, H336
STOT RE 1, H372
Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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 :




Signal word : Danger

| | | | |
|-----------------------|------------|--------------------------------|-------------------|
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SECTION 2: Hazards identification

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|--|--|
| Hazard statements | :  Flammable liquid and vapour. May cause drowsiness or dizziness. May cause cancer. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. |
| <u>Precautionary statements</u> | |
| 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. Do not breathe vapour. |
| Response | : Collect spillage. |
| Storage | : Not applicable. |
| Disposal | : Dispose of contents and container in accordance with all local, regional, national and international regulations. P280, P210, P273, P260, P391, P501 |
| Supplemental label elements | :  Repeated exposure may cause skin dryness or cracking. Contains butanone oxime, 2-ethylhexanoic acid, cobalt salt and Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine. May produce an allergic reaction. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Restricted to professional users. |
| <u>Special packaging requirements</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 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 | : Prolonged or repeated contact may dry skin and cause irritation. |

SECTION 3: Composition/information on ingredients

| | | | | |
|---|---|---------------------|--|---------|
| Mixture | | | | |
| 3.2 Mixtures | | | | |
| Product/ingredient name | Identifiers | % | Classification | Type |
|  naphtha (petroleum), hydrodesulphurized heavy Nota(s) P | EC: 265-185-4 CAS: 64742-82-1 Index: 649-330-00-2 | ≥25 - ≤50 | Flam. Liq. 3, H226 STOT SE 3, H336 STOT RE 1, H372 (central nervous system (CNS)) Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066 | [1] |
| 2-ethylhexanoic acid, zirconium salt | REACH #: 01-2119979088-21 EC: 245-018-1 CAS: 22464-99-9 Index: 607-230-00-6 | ≥1.0 - ≤5.0 | Repr. 1B, H360D | [1] [2] |
| English (GB) | | United Kingdom (UK) | | 2/16 |

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SECTION 3: Composition/information on ingredients

| | | | | |
|---|---|-------|---|---------|
| butanone oxime | REACH #: 01-2119539477-28 EC: 202-496-6 CAS: 96-29-7 Index: 616-014-00-0 | <1.0 | Acute Tox. 3, H301 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 STOT SE 1, H370 (upper respiratory tract) STOT SE 3, H336 STOT RE 2, H373 (blood system) | [1] |
| 2-ethylhexanoic acid, cobalt salt | EC: 237-015-9 CAS: 13586-82-8 | ≤0.30 | Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361f Aquatic Chronic 2, H411 | [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] |
| calcium bis(2-ethylhexanoate) | REACH #: 01-2119978297-19 EC: 205-249-0 CAS: 136-51-6 Index: 607-230-00-6 | <0.30 | Eye Dam. 1, H318 Repr. 1B, H360D | [1] |
| 2-ethylhexanoic acid | REACH #: 01-2119488942-23 EC: 205-743-6 CAS: 149-57-5 Index: 607-230-00-6 | <0.30 | Repr. 1B, H360D | [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.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

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SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : ☒ Adverse symptoms may include the following:
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Skin contact** : ☒ Adverse symptoms may include the following:
 irritation
 dryness
 cracking
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Ingestion** : ☒ Adverse symptoms may include the following:
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

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SECTION 5: Firefighting measures

- 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. 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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). 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

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SECTION 7: Handling and storage

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|---|--|
| | 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. |
| | Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. |
| 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

8.1 Control parameters

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).

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|--------------------------------------|---|
| 2-ethylhexanoic acid, zirconium salt | EH40/2005 WELs (United Kingdom (UK), 1/2020). [zirconium compounds as Zr] STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours. |
| 2-ethylhexanoic acid, cobalt salt | EH40/2005 WELs (United Kingdom (UK), 1/2020). [cobalt and cobalt compounds as Co] Inhalation sensitiser. TWA: 0.1 mg/m³, (as Co) 8 hours. |
| Product/ingredient name | Exposure indices |

| | |
|--|---|
| Recommended monitoring procedures | : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |
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DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|--|------|-----------------------|--------------------|--------------------|----------|
| Naphtha (petroleum), hydrodesulphurized heavy Nota(s) P | DNEL | Long term Inhalation | 1286 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.41 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 1.9 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 178.57 mg/m³ | General population | Local |
| | DNEL | Short term Inhalation | 640 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 837.5 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 1066.67 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 1152 mg/m³ | General population | Systemic |
| | DNEL | Short term Inhalation | 1286.4 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 2.5 mg/m³ | General population | Systemic |
| 2-ethylhexanoic acid, zirconium salt | DNEL | Long term Oral | 2.5 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 3.25 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 5 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 6.49 mg/kg bw/day | Workers | Systemic |
| butanone oxime | DMEL | Long term Oral | 1.6 µg/kg bw/day | General population | Systemic |
| | DMEL | Long term Dermal | 4 µg/kg bw/day | Workers | Systemic |
| | DMEL | Long term Inhalation | 4.82 µg/m³ | General population | Systemic |
| | DMEL | Long term Inhalation | 28 µg/m³ | Workers | Systemic |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | DNEL | Long term Inhalation | 0.43 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 0.9 mg/m³ | Workers | Local |
| | DNEL | Long term Inhalation | 0.055 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 0.308 mg/m³ | Workers | Local |
| calcium bis(2-ethylhexanoate) | DNEL | Long term Oral | 0.167 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.167 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.333 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.58 mg/m³ | General population | Systemic |
| 2-ethylhexanoic acid | DNEL | Long term Inhalation | 2.351 mg/m³ | Workers | Systemic |
| | DNEL | Long term Oral | 1 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 1 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 2 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 3.5 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 14 mg/m³ | Workers | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|------------|--------------------|
| butanone oxime | Fresh water | 0.256 mg/l | Assessment Factors |
| | Sewage Treatment Plant | 177 mg/l | Assessment Factors |

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Skin protection

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SECTION 8: Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:
 Recommended: nitrile rubber, neoprene
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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** : Brownish-red.
- Odour** : Aromatic.
- Odour threshold** : Not available.
- Melting point/freezing point** : May start to solidify at the following temperature: <-60°C (<-76°F) This is based on data for the following ingredient: Naphtha (petroleum), hydrodesulfurized heavy.
- Initial boiling point and boiling range** : >37.78°C (>100°F)
- Flammability (solid, gas)** : liquid
- Upper/lower flammability or explosive limits** : Greatest known range: Lower: 1.4% Upper: 7.6% (Naphtha (petroleum), hydrodesulfurized heavy)
- Flash point** : Closed cup: 40°C (104°F)
- Auto-ignition temperature** :

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SECTION 9: Physical and chemical properties

| Ingredient name | °C | °F | Method |
|---|------------|------------|---------------|
| naphtha (petroleum), hydrodesulphurized heavy Nota(s) P | 280 to 470 | 536 to 878 | |

- Decomposition temperature** :
pH : Not applicable.
Not applicable. insoluble in water.
Viscosity : Kinematic (40°C): >21 mm²/s
Solubility(ies) :

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

- Miscible with water** : No.
Partition coefficient: n-octanol/ water : Not applicable.
Vapour pressure :

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|---|--------------------------------|------------|---------------|--------------------------------|------------|---------------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| naphtha (petroleum), hydrodesulphurized heavy Nota(s) P | 3.7503075 | 0.5 | | | | |

- Relative density** : 1.02
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.

SECTION 10: Stability and reactivity

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

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|------------------------------------|---------|-------------|----------|
| Phaphtha (petroleum), hydrodesulphurized heavy Nota(s) P | LD50 Oral | Rat | >5000 mg/kg | - |
| 2-ethylhexanoic acid, zirconium salt | LD50 Dermal | Rabbit | >5 g/kg | - |
| butanone oxime | LD50 Oral | Rat | >5 g/kg | - |
| | LD50 Dermal | Rabbit | 1100 mg/kg | - |
| | LD50 Oral | Rat | 100 mg/kg | - |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | LC50 Inhalation Dusts and mists | Rat | 5.05 mg/l | 4 hours |
| 2-ethylhexanoic acid | LD50 Oral | Rat | >2000 mg/kg | - |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 3640 mg/kg | - |

Conclusion/Summary : There are no data available on the mixture itself.**Acute toxicity estimates**

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|------------------|-------------------|--------------------------------|-----------------------------------|--|
| SIGMARINE 48 REDBROWN | 22480.9 | N/A | N/A | N/A | N/A |
| butanone oxime | 100 | 1100 | N/A | N/A | N/A |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | N/A | N/A | N/A | N/A | 5.05 |
| 2-ethylhexanoic acid | 3640 | N/A | N/A | N/A | N/A |

Irritation/Corrosion**Conclusion/Summary** : Not available.**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 |
|--|----------------------|------------|-------------|
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | skin | Guinea pig | 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****Conclusion/Summary** : There are no data available on the mixture itself.**Reproductive toxicity****Conclusion/Summary** : There are no data available on the mixture itself.**Teratogenicity****Conclusion/Summary** :
There are no data available on the mixture itself.

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SECTION 11: Toxicological information

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|------------|-------------------|-------------------------|
| naphtha (petroleum), hydrodesulphurized heavy | Category 3 | - | Narcotic effects |
| butanone oxime | Category 1 | - | upper respiratory tract |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|------------|-------------------|------------------------------|
| naphtha (petroleum), hydrodesulphurized heavy | Category 1 | - | central nervous system (CNS) |
| butanone oxime | Category 2 | - | blood system |

Aspiration hazard

| Product/ingredient name | Result |
|---|--------------------------------|
| naphtha (petroleum), hydrodesulphurized heavy | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : ☒ Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : ☒ Adverse symptoms may include the following:
irritation
dryness
cracking
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : ☒ Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Short term exposure

Potential immediate effects : Not available.

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SECTION 11: Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage the unborn child.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|----------------------|--|----------|
| 2-ethylhexanoic acid, zirconium salt Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | Acute LC50 >100 mg/l | Fish | 96 hours |
| | Acute EC50 >100 mg/l | Algae - <i>Pseudokirchneriella subcapitata</i> | 72 hours |
| | Acute EC50 >10 mg/l | Daphnia - <i>Daphnia magna</i> | 48 hours |
| | Acute LC50 >10 mg/l | Fish - <i>Oncorhynchus mykiss</i> | 96 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|--|----------------|------|----------|
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | 301D Ready Biodegradability - Closed Bottle Test | 22 % - 28 days | - | - |

Conclusion/Summary : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | - | - | Inherent |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|------|-----------|
| Butanone oxime Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | 0.63 | 5.01 | Low |
| | >5.86 | - | High |
| 2-ethylhexanoic acid | 2.7 | - | Low |

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SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

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

Hazardous waste : Yes.

Waste catalogue

| 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 | Waste catalogue |
|-------------------|--------------------------|
| Container | 15 01 06 mixed packaging |

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

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|---------|--------|--------|--------|
| 14.1 UN number | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | PAINT | PAINT | PAINT | PAINT |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| | | | | |

| | |
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SECTION 14: Transport information

| | | | | |
|------------------------------------|-----------------|-----------------|--|--|
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable. | Not applicable. | (Naphtha (petroleum), hydrodesulfurized heavy) | 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) |
| ADN | : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. |
| IMDG | : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. |
| IATA | : The environmentally hazardous substance mark may appear if required by other transportation regulations. |

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

| | |
|--|------------------|
| 14.7 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

UK (GB)/REACH
Annex XIV - List of substances subject to authorisation

| |
|--|
| <u>Annex XIV</u> |
| None of the components are listed. |
| <u>Substances of very high concern</u> |
| None of the components are listed. |

| |
|-----------------------------------|
| <u>Ozone depleting substances</u> |
| Not listed. |

| | |
|---|-------------------------------------|
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Restricted to professional users. |
|---|-------------------------------------|

| |
|--|
| <u>Seveso Directive</u> |
| This product is controlled under the Seveso Directive. |
| <u>Danger criteria</u> |

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

National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|-----------------------------------|--|-----------------------------------|----------------|-------|
| 2-ethylhexanoic acid, cobalt salt | UK Occupational Exposure Limits EH40 - WEL | cobalt and cobalt compounds as Co | Carc. | - |

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SECTION 16: Other information

 Indicates information that has changed from previously issued version.


Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = GB 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

| Classification | Justification |
|--|---|
|  Flam. Liq. 3, H226 Carc. 1B, H350 Repr. 1B, H360D STOT SE 3, H336 STOT RE 1, H372 Aquatic Chronic 2, H411 | On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method |

Full text of abbreviated H statements

| | |
|--|--|
|  H226 | Flammable liquid and vapour. |
| H301 | Toxic 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. |
| H336 | May cause drowsiness or dizziness. |
| H350 | May cause cancer. |
| H360D | May damage the unborn child. |
| H361f | Suspected of damaging fertility. |
| H370 | Causes damage to organs. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| 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. |

Full text of classifications

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

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

History

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