# SAFETY DATA SHEET

**Date of issue/Date of revision** 27 October 2026
**Version** 2.08

## Section 1. Identification

**Product code** : 000001024175
**Product name** : SIGMA ECOFLEET 530 REDBROWN
**Other means of identification**
00146095; 00242162
**Product type** : Liquid.

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

**Product use** : Antifouling products
Professional applications, Used by spraying, Application by non spray methods..

**Supplier's details** : PPG Coatings (Singapore) Pte Ltd.
1 Cleantech Loop, CleanTech One, #04-04
Singapore 637141
Tel : +65 6865 3737

**Emergency telephone number (with hours of operation)** : CHEMTREC +(65)-31581349 (CCN 17704)

## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION - Category 2
AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

**GHS label elements, including precautionary statements**

**Hazard pictograms** :



**Signal word** : Danger

# Section 2. Hazards identification

**Hazard statements** : Flammable liquid and vapor.
Harmful if swallowed or if inhaled.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of damaging fertility or the unborn child.
Very toxic 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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling.

**Response** : Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**Storage** : Not applicable.

**Disposal** : Not applicable.

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

**Warning! Contains lead.** : Contains lead. Should not be used on surfaces liable to be chewed or sucked by children. Keep out of reach of children.

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**CAS number/other identifiers**

**CAS number** : Not applicable.

**EC number** : Mixture.

| Ingredient name | % | CAS number |
|---|---|---|
| dicopper oxide | 25 - <50 | 1317-39-1 |
| zinc oxide | 10 - <20 | 1314-13-2 |
| rosin | 10 - <20 | 8050-09-7 |
| xylene | 5 - <10 | 1330-20-7 |
| 5-methylhexan-2-one | 5 - <10 | 110-12-3 |
| Propane, 1-(ethenyloxy)-2-methyl-, polymer with chloroethene | 3 - <5 | 25154-85-2 |
| Talc , not containing asbestiform fibres | 3 - <5 | 14807-96-6 |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | 1 - <3 | 64359-81-5 |
| ethylbenzene | 1 - <3 | 100-41-4 |
| copper oxide | 1 - <3 | 1317-38-0 |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | 0.3 - <1 | 911674-82-3 |
| Cashew, nutshell liq. | 0.3 - <1 | 8007-24-7 |

# Section 3. Composition/information on ingredients

**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 and hence require reporting in this section.**

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

**SUB codes represent substances without registered CAS Numbers.**

# Section 4. First aid measures

## Description of necessary 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.

**Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

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

**Inhalation** : Harmful if inhaled.

**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 fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

# Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

**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.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Flammable liquid and vapor. 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 thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
halogenated compounds
metal oxide/oxides
oxides of lead

**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

## 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor. Put on appropriate personal protective equipment. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

**For emergency responders** : If specialized 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".

**Environmental precautions** : Avoid dispersal of spilled 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.

## Methods and materials 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 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

## 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 vapor 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.

# Section 7. Handling and storage

**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.

**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 oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| dicopper oxide | **Workplace Safety and Health Act (Singapore, 1/2025) [Copper (fume)]** PEL (long term) 8 hours: 0.2 mg/m³. Form: Fume. |
| zinc oxide | **Workplace Safety and Health Act (Singapore, 1/2025)** PEL (long term) 8 hours: 5 mg/m³. Form: Fume. PEL (long term) 8 hours: 10 mg/m³. Form: Dust. PEL (short term) 15 minutes: 10 mg/m³. Form: Fume. |
| rosin | **ACGIH TLV (United States, 1/2026) [resin acids]** Skin sensitizer , Inhalation sensitizer. TWA 8 hours: 0.001 mg/m³ (as total Resin acids). Form: Inhalable fraction. |
| xylene | **Workplace Safety and Health Act (Singapore, 1/2025) [Xylene]** PEL (long term) 8 hours: 100 ppm. PEL (long term) 8 hours: 434 mg/m³. PEL (short term) 15 minutes: 651 mg/m³. PEL (short term) 15 minutes: 150 ppm. |
| 5-methylhexan-2-one | **Workplace Safety and Health Act (Singapore, 1/2025)** PEL (long term) 8 hours: 50 ppm. PEL (long term) 8 hours: 234 mg/m³. |
| Talc , not containing asbestiform fibres | **Workplace Safety and Health Act** |

# Section 8. Exposure controls/personal protection

| | |
|---|---|
| | **(Singapore, 1/2025)**<br>PEL (long term) 8 hours: 2 mg/m³. |
| ethylbenzene | **Workplace Safety and Health Act (Singapore, 1/2025)**<br>PEL (long term) 8 hours: 100 ppm.<br>PEL (long term) 8 hours: 434 mg/m³.<br>PEL (short term) 15 minutes: 543 mg/m³.<br>PEL (short term) 15 minutes: 125 ppm. |
| copper oxide | **Workplace Safety and Health Act (Singapore, 1/2025) [Copper (fume)]**<br>PEL (long term) 8 hours: 0.2 mg/m³. Form: Fume. |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | **ACGIH TLV (United States)**<br>TWA: 3 mg/m³ (Respirable fraction).<br>TWA: 10 mg/m³ (Total dust). |

**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.

**Biological exposure indices**

No exposure indices known.

**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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**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.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Chemical splash goggles and face shield.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately

# Section 8. Exposure controls/personal protection

estimated.

**Gloves** : butyl rubber

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**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.

# Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Color** : Brownish-red.

**Odor** : Aromatic.

**pH** : insoluble in water.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 30°C (86°F)

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : liquid

**Vapor pressure** : Not available.

**Vapor density** :

**Relative density** : 1.94

**Solubility(ies)** :

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

**Auto-ignition temperature** : Not available.

**Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): >21 $mm^2/s$ (>21 cSt)

# Section 10. Stability and reactivity

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

**Chemical stability** : The product is stable.

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

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

**Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

# Section 11. Toxicological information

## Information on toxicological effects

## Acute toxicity

| Product/ingredient name | Result | Dose / Exposure |
|---|---|---|
| dicopper oxide | Rat - Oral - LD50 | 500 mg/kg |
| | Rat - Dermal - LD50 | >2000 mg/kg |
| | Rat - Inhalation - LC50 Dusts and mists | 3.34 mg/l [4 hours] |
| zinc oxide | Rat - Oral - LD50 | >5000 mg/kg |
| | Rat - Dermal - LD50 | >2000 mg/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5700 mg/m³ [4 hours] |
| Rosin | Rat - Oral - LD50 | 7600 mg/kg |
| | Rat - Dermal - LD50 | >2000 mg/kg |
| xylene | Rat - Oral - LD50 | 4.3 g/kg |
| | Rabbit - Dermal - LD50 | 1.7 g/kg |
| 5-methylhexan-2-one | Rabbit - Dermal - LD50 | 8.14 g/kg |
| | Rat - Oral - LD50 | 5657 mg/kg |
| | *Toxic effects*: Behavioral - Tremor Behavioral - Ataxia | |
| | Rat - Inhalation - LC50 Gas. | 5000 ppm [4 hours] |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | Rat - Oral - LD50 | 567 mg/kg |
| | Rabbit - Dermal - LD50 | 3.9 g/kg |
| | Rat - Inhalation - LC50 Dusts and mists | 0.16 mg/l [4 hours] |
| ethylbenzene | Rat - Oral - LD50 | 3.5 g/kg |
| | Rabbit - Dermal - LD50 | 17.8 g/kg |
| | Rat - Inhalation - LC50 Vapor | 17.8 mg/l [4 hours] |
| copper oxide | Rat - Oral - LD50 | >2000 mg/kg |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | Rat - Inhalation - LC50 Dusts and mists | >5.08 mg/l [4 hours] |

# Section 11. Toxicological information

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

## Irritation/Corrosion

| Product/ingredient name | Result |
|---|---|
| xylene | Rabbit - Skin - Moderate irritant<br>Amount/concentration applied: 500 mg<br>Duration of treatment/exposure: 24 hours |

**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.

## Sensitization

**Conclusion/Summary**

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

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

## Germ cell 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

| Product/ingredient name | Test | Result |
|---|---|---|
| 5-methylhexan-2-one | Rabbit - Inhalation<br>OECD 414<br>1250 ppm | Developmental: Equivocal |

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

## Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| xylene | Category 3 | - | Respiratory tract irritation |
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| 4,5-dichloro-2-octyl-2H-isothiazol-3-one | Category 3 | - | Respiratory tract irritation |

## Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| ethylbenzene | Category 2 | - | hearing organs |

## Aspiration hazard

# Section 11. Toxicological information

| Name | Result |
|---|---|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

## Information on the likely routes of exposure

Not available.

## Potential acute health effects

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

**Inhalation** : Harmful if inhaled.

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

**Ingestion** : Harmful if swallowed.

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

**Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

**Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

# Section 11. Toxicological information

**Potential delayed effects** : Not available.

## Potential chronic health effects

**General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

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

**Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

## Numerical measures of toxicity

### Acute toxicity estimates

| Route | ATE value |
|---|---|
| Oral | 1238.16 mg/kg |
| Dermal | 11228.33 mg/kg |
| Inhalation (gases) | 55783.51 ppm |
| Inhalation (vapors) | 50.63 mg/l |
| Inhalation (dusts and mists) | 2.02 mg/l |

**Other information** :

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/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.

# Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Dose/ Exposure |
|---|---|---|---|
| DICOPPER OXIDE / COPPER (I) OXIDE | LC50 | Fish | 0.003 mg/l [96 hours] |
| ZINC OXIDE | Acute - EC50 - Fresh water | Daphnia - Water flea - *Daphnia magna* - Neonate | 0.481 mg/l [48 hours] |
| EcoToAq | Acute - EC50 | Algae | 0.17 mg/l [72 hours] |
| EcoToAq | Chronic - NOEC - Fresh water | Algae | 0.017 mg/l [72 hours] |
| METHYL ISOAMYL KETONE | Acute - LC50 | Fish | 159 mg/l [96 hours] |
| 4,5-Dichloro-2-octyl-2H-isothiazol-3-one | Acute - EC50 - Marine water | Algae - Diatom - *Nitzschia pungens* | 267.368 µg/l [96 hours] |
| EcoToAq | Chronic - NOEC - Marine water | Algae - Diatom - *Nitzschia pungens* | 19.789 µg/l [96 hours] |
| EcoToAq | Acute - LC50 - Marine water | Crustaceans - Brine shrimp - *Artemia sp.* | 0.318 mg/l [48 hours] |
| EcoToAq | Acute - LC50 - Fresh water | Fish | 0.0027 mg/l [96 hours] |
| EcoToAq | Chronic - NOEC - Fresh water | Fish | 0.00056 mg/l [97 days] |
| ETHYLBENZENE | Acute - EC50 - Fresh water | Daphnia | 1.8 mg/l [48 hours] |
| EcoToAq | Chronic - NOEC - Fresh water | Daphnia - *Ceriodaphnia dubia* | 1 mg/l |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | Acute - LC50 | Fish | >100 mg/l [96 hours] |

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

## Persistence/degradability

| Product/ingredient name | Test | Result | Dose / Inoculum |
|---|---|---|---|
| 5-methylhexan-2-one | OECD 301D | 67% [28 days] - Readily | |
| ethylbenzene | - | 79% [10 days] - Readily | |

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

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

## Bioaccumulative potential

# Section 12. Ecological information

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| 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 |

**Mobility in soil**

**Soil/Water partition coefficient** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

# Section 14. Transport information

| | UN | IMDG | IATA |
|---|---|---|---|
| **UN number** | UN1263 | UN1263 | UN1263 |
| **UN proper shipping name** | PAINT | PAINT | PAINT |
| **Transport hazard class(es)** | 3 | 3 | 3 |
| **Packing group** | III | III | III |
| **Environmental hazards** | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| **Marine pollutant substances** | Not applicable. | (dicopper oxide) | Not applicable. |

# Section 14. Transport information

**Additional information**

**UN** : None identified.

**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.

**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.

**Transport in bulk according to IMO instruments** : Not applicable.

# Section 15. Regulatory information

**Singapore - hazardous chemicals under government control**

| Ingredient name | Status |
|---|---|
| lead compounds in paint | Listed |

**International regulations**

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

# Section 16. Other information

**History**

**Date of issue/Date of revision** : 27 October 2026

**Date of previous issue** : 2/26/2026

**Version** : 2.08

**Prepared by** : EHS

**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

**Indicates information that has changed from previously issued version.**

# Section 16. Other information

## Notice to reader

**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 PPG, 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.**