

SAFETY DATA SHEET



Date of issue : 8 November 2021

Version : 4

Section 1. Identification

Product code : 47297-C8000/20L

Product name : SIGMA ECOFLEET 290S BLACK

Product type : Liquid.

Recommended use and restrictions

Use of the substance/
mixture : Antifouling products

Uses advised against : Not applicable.


Supplier's details : PPG INDUSTRIES NEW ZEALAND LTD
5 MONAHAN ROAD, MT WELLINGTON,
AUCKLAND
www.ppgnz.co.nz

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09 573 1620, 0800 659378
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Emergency telephone
number (with hours of
operation) : New Zealand 0800 000 096 (24 hours) / Australia 1800 883 254 (24 hours)
For international shipping emergencies: 1-412-391-1618

e-mail address of person
responsible for this SDS : ehsnz@ppg.com

Section 2. Hazards identification

HSNO Classification :  FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
EYE IRRITATION - Category 2
SKIN SENSITISATION - Category 1
GERM CELL MUTAGENICITY - Category 1
CARCINOGENICITY - Category 2
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

Symbol :



GHS label elements

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapour.
 Harmful if swallowed or if inhaled.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 May cause genetic defects.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 May cause damage to organs.
 May cause damage to organs through prolonged or repeated exposure.
 Very toxic to aquatic life with long lasting effects.
 Prolonged or repeated contact may dry skin and cause irritation.

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. Do not breathe vapour. Wash thoroughly after handling.

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

Storage : Not applicable.

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

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

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and has been classified according to the Hazardous Substances (Classifications) Notice 2017.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Land Transport Rule: Dangerous Goods 2005.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Product code : 47297-C8000/20L

| Hazardous ingredients | % | CAS number |
|--|----------|-------------|
| <input checked="" type="checkbox"/> copper oxide | 10 - <30 | 1317-39-1 |
| rosin | 10 - <30 | 8050-09-7 |
| zinc oxide | 10 - <30 | 1314-13-2 |
| 4-methylpentan-2-one | 1 - <10 | 108-10-1 |
| Solvent naphtha (petroleum), light aromatic | 1 - <10 | 64742-95-6 |
| zineb (ISO) | 1 - <10 | 12122-67-7 |
| 1,2,4-trimethylbenzene | 1 - <10 | 95-63-6 |
| carbon black, respirable powder | 1 - <10 | 1333-86-4 |
| xylene | 1 - <10 | 1330-20-7 |
| copper oxide | <1 | 1317-38-0 |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid | <1 | 911674-82-3 |

Section 3. Composition/information on ingredients

| | | |
|--------------------------------|----|-----------|
| and 1,3-phenylenedimethanamine | | |
| copper | <1 | 7440-50-8 |
| ethylbenzene | <1 | 100-41-4 |

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 or have an OEL and hence require reporting in this section.

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

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 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled.
- Skin contact** : May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. May cause damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced foetal weight
increase in foetal deaths
skeletal malformations

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Specific treatments : Not available.

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.

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. Firefighting measures

Extinguishing media

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

Not suitable : Do not use water jet.

Specific hazards arising from the chemical : 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 thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : 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".

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.

Methods and material for containment and cleaning up

Section 6. Accidental release measures

- 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.

Section 7. Handling and storage

- Precautions for safe handling** : 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.
- 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.

Section 8. Exposure controls/personal protection

Control parameters

| Ingredient name | Exposure limits |
|----------------------|--|
| copper oxide | NZ HSWA 2015 (New Zealand, 11/2020). Skin sensitiser. WES-TWA: 0.01 mg/m ³ , (as Cu) 8 hours. Form: The value for respirable dust. |
| rosin | ACGIH TLV (United States, 1/2021). Skin sensitiser. Inhalation sensitiser. |
| 4-methylpentan-2-one | NZ HSWA 2015 (New Zealand, 11/2020). WES-STEL: 307 mg/m ³ 15 minutes. |

Section 8. Exposure controls/personal protection

| | |
|---|---|
| 1,2,4-trimethylbenzene | WES-STEL: 75 ppm 15 minutes. WES-TWA: 205 mg/m ³ 8 hours. WES-TWA: 50 ppm 8 hours. |
| carbon black, respirable powder | NZ HSWA 2015 (New Zealand, 11/2020). WES-TWA: 25 ppm 8 hours. WES-TWA: 123 mg/m ³ 8 hours. |
| xylene | NZ HSWA 2015 (New Zealand, 11/2020). WES-TWA: 3 mg/m ³ 8 hours. NZ HSWA 2015 (New Zealand, 11/2020). WES-TWA: 217 mg/m ³ 8 hours. WES-TWA: 50 ppm 8 hours. |
| copper oxide | NZ HSWA 2015 (New Zealand, 11/2020). Skin sensitiser. WES-TWA: 0.01 mg/m ³ , (as Cu) 8 hours. Form: The value for respirable dust. |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine copper | ACGIH TLV (United States). TWA: 3 mg/m ³ , (Respirable fraction) NZ HSWA 2015 (New Zealand, 11/2020). Skin sensitiser. WES-TWA: 0.01 mg/m ³ , (as Cu) 8 hours. Form: The value for respirable dust. |
| ethylbenzene | NZ HSWA 2015 (New Zealand, 11/2020). WES-STEL: 543 mg/m ³ 15 minutes. WES-STEL: 125 ppm 15 minutes. WES-TWA: 434 mg/m ³ 8 hours. WES-TWA: 100 ppm 8 hours. |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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.

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.

Section 8. Exposure controls/personal protection

- 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.
- 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.
- Gloves** : butyl rubber
- Eye protection** : Chemical splash goggles.
- 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Black.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 34°C (93.2°F)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapour pressure** : Not available.
- Relative density** : 1.62
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

Section 10. Stability and reactivity

- Stability** : The product may not be stable under certain conditions of storage or use.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidising materials
strong acids
strong alkalis
- Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides
- Hazardous polymerisation** : Under normal conditions of storage and use, hazardous polymerisation will not occur.

Section 11. Toxicological information

Information on likely routes of exposure

- Inhalation** : Harmful if inhaled.
- Ingestion** : Harmful if swallowed. May cause damage to organs following a single exposure if swallowed.
- Skin contact** : May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye irritation.

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:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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

Acute toxicity

Section 11. Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---------------------------------|---------|-------------------------|----------|
| copper oxide | LC50 Inhalation Dusts and mists | Rat | 3.34 mg/l | 4 hours |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| rosin | LD50 Oral | Rat | 1340 mg/kg | - |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| zinc oxide | LD50 Oral | Rat | 7600 mg/kg | - |
| | LC50 Inhalation Dusts and mists | Rat | >5700 mg/m ³ | 4 hours |
| 4-methylpentan-2-one | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| | LC50 Inhalation Vapour | Rat | 12.3 mg/l | 4 hours |
| Solvent naphtha (petroleum), light aromatic | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 2.08 g/kg | - |
| | LD50 Dermal | Rabbit | 3.48 g/kg | - |
| zineb (ISO) | LD50 Oral | Rat | 8400 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| 1,2,4-trimethylbenzene | LC50 Inhalation Vapour | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| carbon black, respirable powder | LD50 Oral | Rat | >10 g/kg | - |
| | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| xylene | LD50 Oral | Rat | 4.3 g/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| copper oxide Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | LC50 Inhalation Dusts and mists | Rat | >5.08 mg/l | 4 hours |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| copper ethylbenzene | LC50 Inhalation Dusts and mists | Rat | >5.11 mg/l | 4 hours |
| | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |

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

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| xylene | 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 |
|-------------------------|-------------------|------------|-------------|
| zineb (ISO) | 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.

Potential chronic health effects

Section 11. Toxicological information

- General** : May cause damage to organs through prolonged or repeated exposure. 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.
- Skin contact** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : May cause genetic defects.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : Suspected of damaging fertility.

Chronic toxicity

Not available.

Carcinogenicity

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

Mutagenicity

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

Teratogenicity

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

Reproductive toxicity

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

Specific target organ toxicity

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|---------------|
| <input checked="" type="checkbox"/> copper oxide | Category 2 | - | - |
| 1,2,4-trimethylbenzene | Category 2 | inhalation | - |
| xylene | Category 2 | - | - |
| copper oxide | Category 2 | oral | - |
| copper | Category 2 | - | - |
| ethylbenzene | Category 2 | inhalation | - |

Aspiration hazard

| Name |
|---|
| Solvent naphtha (petroleum), light aromatic |

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--|-----------------|
| <input checked="" type="checkbox"/> Oral | 616.01 mg/kg |
| Dermal | 100854.42 mg/kg |
| Inhalation (vapours) | 300.34 mg/l |
| Inhalation (dusts and mists) | 3.73 mg/l |

Other information :

Section 11. Toxicological 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 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.

Section 12. Ecological information

Ecotoxicity : This material is very toxic to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-------------------------------------|-----------------------------------|----------|
| copper 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 Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| 4-methylpentan-2-one | Chronic NOEC 0.017 mg/l Fresh water | Algae | 72 hours |
| Solvent naphtha (petroleum), light aromatic | Acute LC50 >179 mg/l | Fish | 96 hours |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | Acute LC50 8.2 mg/l | Fish | 96 hours |
| copper | Acute LC50 >100 mg/l | Fish | 96 hours |
| ethylbenzene | Acute LC50 810 ppb | Fish | 96 hours |
| | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - Ceriodaphnia dubia | - |

Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|-----------|--------------------------|------|----------|
| 4-methylpentan-2-one | OECD 301F | 83 % - Readily - 28 days | - | - |
| ethylbenzene | - | 79 % - Readily - 10 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| 4-methylpentan-2-one | - | - | Readily |
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| rosin | 1.9 to 7.7 | - | high |
| 4-methylpentan-2-one | 1.9 | - | low |
| zineb (ISO) | 1.3 | - | low |
| 1,2,4-trimethylbenzene | 3.63 | 120.23 | low |
| xylene | 3.12 | 7.4 to 18.5 | low |
| ethylbenzene | 3.6 | 79.43 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Do not allow to enter drains or watercourses.

Section 13. Disposal considerations






Disposal methods : 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. 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. 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.

Not suitable: : Do not allow to enter drains or watercourses.

The classification of the product may meet the criteria for a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | NZ | 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. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | (dicopper oxide, zinc oxide) | (dicopper oxide, zinc oxide) | Not applicable. |

Additional information

NZ : The marine pollutant mark is not required when transported by road or rail.

Hazchem code : •3Y

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. Transport information

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

New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.

HSNO Approval Number : HSR002669 Flammable, Toxic [6.7]

Emergency Management Regulations : Level 1: Labelling required when 1L is present in a workplace.

Level 2: MSDS required when any amount is present in a workplace. At least 2 x 4.5 kg powder fire extinguishers required when 500L is present in a workplace.

Level 3: Emergency Response Plans and Secondary Containment required when 1000L is stored.

Flammable Signage required when 1000L is present in a workplace.

Toxic Signage required when 10000L is present in a workplace.

Classes 1 to 5 Control Regulations : Hazardous Atmosphere Zones required for quantities greater than: 100L (closed), 25L (decanting), 5L (open occasionally), 1L (open continuously). Hazardous Substances Location Certificate required for quantities greater than: 1500L (containers up to 5L), 500L (containers >5L), 250L (open containers).

Approved Handler : Not applicable.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Date of issue : 8 November 2021

✔ Indicates information that has changed from previously issued version.

Key to abbreviations : STEL = Short Term Exposure Limit
TWA = Time-Weighted Average
WES = Work Exposure Standard

References : Not available.

Organisation that prepared the SDS : EHS

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