SAFETY DATA SHEET



Date of issue/Date of revision4 September 2023Version 1.04

| Section 1. Identification | | |
|---|---|--|
| Product code | : 00445443 | |
| Product name | : SIGMAZINC 68 SP BASE REDGREY | |
| Product type | : Liquid. | |
| Relevant identified uses of the substance or mixture and uses advised against | | |
| Product use | Coating. Professional applications, Used by spraying. | |
| Supplier's details | : PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737 | |
| 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 SKIN CORROSION/IRRITATION - Category 2 |
|--|---|
| | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 |
| | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |

GHS label elements, including precautionary statements

| Hazard pictograms | |
|--------------------------|--|
| Signal word | : Warning |
| Hazard statements | Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | |

Section 2. Hazards identification

| Prevention | : Wear protective gloves. Wear 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 vapour. Wash thoroughly after handling. |
|------------|---|
| Response | : Collect spillage. 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 | : Not applicable. |

result in classification

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

Section 3. Composition/information on ingredients

Mixture

| Substance/ | mixture | į |
|------------|---------|---|
| | | |

CAS number/other identifiers

| CAS number: Not applicable.EC number: Mixture. | | |
|---|---|---|
| Ingredient name | % | CAS number |
| Zinc powder - zinc dust (stabilized) xylene reaction product: bisphenol-A-(epichlorhydrin); epoxy resin zinc oxide Epoxy Resin (700 <mw<=1100) Talc , not containing asbestiform fibres trizinc bis(orthophosphate) 1-methoxy-2-propanol ethylbenzene Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine</mw<=1100) | 50 - 100 5 - <10 3 - <5 1 - <3 1 - <3 1 - <3 1 - <3 1 - <3 1 - <3 0.3 - <1 | 7440-66-6 1330-20-7 25068-38-6 1314-13-2 25036-25-3 14807-96-6 7779-90-0 107-98-2 100-41-4 911674-82-3 |

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 | 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. | |

| Most important symptoms/e | s, acute and delayed | |
|-------------------------------|---|-----------|
| Potential acute health effect | | |
| Eye contact | Causes serious eye irritation. | |
| Inhalation | No known significant effects or critical hazards. | |
| Skin contact | Causes skin irritation. Defatting to the skin. May cause an allergic skin read | ction. |
| Ingestion | No known significant effects or critical hazards. | |
| Over-exposure signs/symp | <u>S</u> | |
| Eye contact | Adverse symptoms may include the following: pain or irritation watering redness | |
| Inhalation | No specific data. | |
| Skin contact | Adverse symptoms may include the following: irritation redness dryness cracking | |
| Ingestion | No specific data. | |
| Indication of immediate med | attention and special treatment needed, if necessary | |
| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if la quantities have been ingested or inhaled. | rge |
| Specific treatments | No specific treatment. | |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable traini may be dangerous to the person providing aid to give mouth-to-mouth resus Wash contaminated clothing thoroughly with water before removing it, or we gloves. | citation. |

See toxicological information (Section 11)

Section 5. Firefighting 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 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 phosphorus oxides halogenated compounds metal oxide/oxides |
| 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 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". | |
| 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 spill 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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| 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. 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

Occupational exposure limits

| Ingredient name | | Exposure limits | | |
|---|---|--|--|--|
| ₩ylene zinc oxide | | Workplace Safety and Health Act (Singapore, 2/2006). [Xylene] PEL (short term): 651 mg/m ³ 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 10 mg/m ³ 8 hours. Form: Dust PEL (short term): 10 mg/m ³ 15 minutes. Form: Fume PEL (long term): 5 mg/m ³ 8 hours. Form: Fume | | |
| Talc , not containing asbestifor | m fibres | Workplace Safety and Health Act (Singapore, 2/2006). | | |
| 1-methoxy-2-propanol | | PEL (long term): 2 mg/m ³ 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). [Propylene glycol monomethyl ether] | | |
| ethylbenzene | | PEL (short term): 553 mg/m ³ 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 369 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 543 mg/m ³ 15 minutes. PEL (short term): 125 ppm 15 minutes. PEL (long term): 434 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours. | | |
| Reaction products of 12-hydro: acid and 1,3-phenylenedimethe | xyoctadecanoic acid and octadecanoic anamine | ACGIH TLV (United States). TWA: 3 mg/m ³ , (Respirable fraction) | | |
| Recommended monitoring procedures | | riate monitoring standards. Reference to hods for the determination of hazardous | | |
| Appropriate engineering controls | contaminants below any recommende | ols to keep worker exposure to airborne ed or statutory limits. The engineering controls t concentrations below any lower explosive | | |
| Environmental exposure controls | | | | |

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Section 8. Exposure controls/personal protection

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. |
| 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 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. |
| Colour | : Grey. |
| Odour | : Characteristic. |
| рН | insoluble in water. |
| Boiling point | : >37.78°C (>100°F) |
| Flash point | : Closed cup: 26°C (78.8°F) |
| Evaporation rate | Highest known value: 0.84 (ethylbenzene) Weighted average: 0.79compared with butyl acetate |
| Flammability (solid, gas) | : liquid |

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Section 9. Physical and chemical properties

| Vapour pressure | : | Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.98 kPa (7.35 mm Hg) (at 20°C) |
|---------------------------|---|--|
| Vapour density | : | Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.58 (Air = 1) |
| Relative density | : | 3.08 |
| | | Media Result |
| Solubility(ies) | 1 | cold water Not soluble |
| Auto-ignition temperature | : | Lowest known value: 270°C (518°F) (1-methoxy-2-propanol). |
| Viscosity | : | Kinematic (40°C (104°F)): >21 mm²/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: oxidising agents, strong alkalis, strong acids. |
| Hazardous decomposition products | : Depending on conditions, decomposition products may include the following materials: carbon oxides phosphorus oxides halogenated compounds metal oxide, oxides |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------------|---------|-------------------------|----------|
| Zínc powder - zinc dust (stabilized) | LC50 Inhalation Dusts and mists | Rat | >5.4 mg/l | 4 hours |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| - | LD50 Oral | Rat | 4.3 g/kg | - |
| reaction product: bisphenol- | LD50 Dermal | Rabbit | >2 g/kg | - |
| A-(epichlorhydrin); epoxy resin | | | | |
| | LD50 Oral | Rat | >2 g/kg | - |
| zinc oxide | LC50 Inhalation Dusts and mists | Rat | >5700 mg/m ³ | 4 hours |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Epoxy Resin (700 <mw <=1100)</mw | LD50 Dermal | Rat | >2000 mg/kg | - |

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Section 11. Toxicological information

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|-----------------------------|---------------------------------|--------|-------------|---------|
| | LD50 Oral | Rat | >2000 mg/kg | - |
| trizinc bis(orthophosphate) | LC50 Inhalation Dusts and mists | Rat | >5.7 mg/l | 4 hours |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| 1-methoxy-2-propanol | LC50 Inhalation Vapour | Rat | >7000 ppm | 6 hours |
| | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 5.2 g/kg | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| Reaction products of | LC50 Inhalation Dusts and mists | Rat | >5.08 mg/l | 4 hours |
| 12-hydroxyoctadecanoic | | | _ | |
| acid and octadecanoic acid | | | | |
| and | | | | |
| 1,3-phenylenedimethanamine | | | | |

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 | - |
| reaction product: bisphenol- A-(epichlorhydrin); epoxy resin | Eyes - Mild irritant | Rabbit | - | mg 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | - | - |
| | Skin - Moderate irritant | Rabbit | - | - | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 Ul | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 2 | - |
| | | | | mg | |

Conclusion/Summary

| : There are no data available on the mixture itself. |
|--|
| : 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 | |
|--|-------------------|--------------------------|-------------|--|
| reaction product: bisphenol- A-(epichlorhydrin); epoxy resin | skin | Mouse | Sensitising | |
| Conclusion/Summary | | ta available on the mixt | un itaalf | |

| 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. |

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|-----------|--------------|------------|

Section 11. Toxicological information

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.

Specific target organ toxicity (single exposure)

| Name | | Route of exposure | Target organs |
|--|------------|-------------------|---------------------------------|
| xylene | Category 3 | | Respiratory tract irritation |
| Talc , not containing asbestiform fibres | Category 3 | | Respiratory tract irritation |
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

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

Information on likely routes : Not available. of exposure

Potential acute health effects

| Eye contact | : Causes serious eye irritation. |
|--------------|---|
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| Eye contact | Adverse symptoms may include the following: pain or irritation watering redness No specific data. |
|--------------|--|
| Skin contact | Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | : No specific data. |

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Section 11. Toxicological information

| | - |
|--------------------------------|---|
| Delayed and immediate effe | cts as well as chronic effects from short and long-term exposure |
| Short term exposure | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| <u>Long term exposure</u> | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Potential chronic health eff | <u>ects</u> |
| 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 | : No known significant effects or critical hazards. |
| | |

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|------------------------------|---------------|
| ☑ermal | 5865.28 mg/kg |
| Inhalation (vapours) | 169.79 mg/l |
| Inhalation (dusts and mists) | 21.82 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 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

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---|--|----------------------|
| Znc powder - zinc dust (stabilized) | Acute EC50 0.106 mg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Chronic NOEC 0.0727 mg/l Fresh water | Daphnia - <i>Daphnia Magna</i> | 21 days |
| reaction product: bisphenol- A-(epichlorhydrin); epoxy resin | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |
| zinc oxide | Acute EC50 0.17 mg/l Acute EC50 0.481 mg/l Fresh water | Algae Daphnia - <i>Daphnia magna</i> - Neonate | 72 hours 48 hours |
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Section 12. Ecological information

| • | | | |
|-----------------------------|--|------------------------------|----------|
| | Chronic NOEC 0.017 mg/l Fresh water | Algae | 72 hours |
| trizinc bis(orthophosphate) | Acute LC50 0.112 mg/l | Fish | 96 hours |
| | Chronic NOEC 0.026 mg/l | Fish | 30 days |
| 1-methoxy-2-propanol | Acute LC50 23300 mg/l | Daphnia | 48 hours |
| | Acute LC50 >4500 mg/l Fresh water | Fish | 96 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/I Fresh water | Daphnia - Ceriodaphnia dubia | - |
| Reaction products of | Acute LC50 >100 mg/l | Fish | 96 hours |
| 12-hydroxyoctadecanoic | | | |
| acid and octadecanoic acid | | | |
| and | | | |
| 1,3-phenylenedimethanamine | | | |
| Conclusion/Summary | : There are no data available on the m | ixture itself. | |

Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|------------------|--|-----------|------------------|
| reaction product: bisphenol- A-(epichlorhydrin); epoxy resin ethylbenzene | OECD 301F | 5 % - 28 days 79 % - Readily - 10 day | - /s - | - |
| Conclusion/Summary : There are no data available on the mixture itself. | | | | |
| Product/ingredient name | Aquatic half-lif | e Ph | notolysis | Biodegradability |

| Froduct/ingredient name | Aquatic nan-me | FIIOIOIYSIS | Diodegradability |
|------------------------------|----------------|-------------|------------------|
| xylene | - | - | Readily |
| reaction product: bisphenol- | - | - | Not readily |
| A-(epichlorhydrin); epoxy | | | |
| resin | | | |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---|--------------|-------------|------------|
| xylene | 3.12 | 7.4 to 18.5 | Low |
| reaction product: bisphenol- A-(epichlorhydrin); epoxy | 2.64 to 3.78 | 31 | Low |
| resin 1-methoxy-2-propanol ethylbenzene | <1 3.6 | - 79.43 | Low Low |

Mobility in soil

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

Other adverse effects

: No known significant effects or critical hazards.

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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.

Section 14. Transport information

| | UN | IMDG | ΙΑΤΑ |
|--------------------------------|--|--|--|
| 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. | (Zinc powder - zinc dust (stabilized), reaction product: bisphenol-A-(epichlorhydrin); epoxy resin) | Not applicable. |

Additional information

| UN | : None identified. |
|------|--|
| IMDG | : The marine pollutant mark is not required when transported in sizes of \leq 5 L or \leq 5 kg. |
| ΙΑΤΑ | : 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 | | Not applicable. |
|-----------------------------|--|-----------------|
| to IMO instruments | | |

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Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

International regulations Montreal Protocol Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

History

Section 16. Other information

| HISTORY | |
|--------------------------------|--|
| Date of issue/Date of revision | : 4 September 2023 |
| Date of previous issue | : 1/6/2023 |
| Version | : 1.04 |
| 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 = Internediate 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.

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