SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to GHS UN rev. 7

Date of issue/Date of revision 15 November 2022

Version 7.05

| Section 1. Identification | | |
|---|--|--|
| Product code Product name Product type | : 00239670 : SIGMASHIELD 460 BASE (LEAD FREE) : Liquid. | |
| Other means of identification Not available. | | |
| Product use | the substance or mixture and uses advised against Coating. Professional applications, Used by spraying. | |
| Uses advised against | : Product is not intended, labelled or packaged for consumer use. | |
| Company/undertaking identification | PPG Industries Sales, Inc. and PPG Coatings (Philippines), Inc. 3rd Floor First Life Center 174 Salcedo St., Legaspi Village Makati City 1229, Philippines Tel # 00632- 752-6773/ Fax # 00632-752-6771 | |
| Emergency telephone number | : CHEMTREC +(63) 2-395-3308 (CCN 17704) | |

Section 2. Hazards identification

| Classification of the substance or mixture | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 38.2% Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 58.4% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 85.8% |
|---|--|
| | Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 66.2% |

GHS label elements

Section 2. Hazards identification

| Hazard pictograms | : | |
|----------------------------|---|--|
| Signal word | ; | Danger |
| Hazard statements | | Flammable liquid and vapor. May be harmful if swallowed or in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | | |
| Prevention | : | Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. |
| Response | : | Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. 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. Immediately call a POISON CENTER or doctor. |
| Storage | : | Not applicable. |
| Disposal | : | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Other hazards which do not | : | Causes digestive tract burns. Prolonged or repeated contact may dry skin and |

Section 3. Composition/information on ingredients

cause irritation.

Substance/mixture

result in classification

: Mixture

CAS number/other identifiers

| Ingredient name | % | CAS number |
|---|----------|------------|
| <mark>E</mark> poxy resin (MW ≤ 700) | 20 - <25 | 25068-38-6 |
| xylene | 5 - <10 | 1330-20-7 |
| Talc , not containing asbestiform fibres | 3 - <5 | 14807-96-6 |
| crystalline silica, respirable powder (<10 microns) | 3 - <5 | 14808-60-7 |
| 4-nonylphenol, branched | 1 - <3 | 84852-15-3 |
| ethylbenzene | 1 - <3 | 100-41-4 |
| 2-methylpropan-1-ol | 1 - <3 | 78-83-1 |
| Phenol, 2-nonyl-, branched | <0.1 | 91672-41-2 |

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.

Section 3. Composition/information on ingredients

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/ | enects, acute and delayed |
|--------------------------------|--|
| Potential acute health effe | <u>cts</u> |
| Eye contact | : Causes serious eye damage. |
| Inhalation | : Harmful if inhaled. |
| Skin contact | : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. |
| <u>Over-exposure signs/sym</u> | <u>ptoms</u> |
| Eye contact | : Adverse symptoms may include the following: pain watering redness |
| Inhalation | : No specific data. |
| Skin contact | : Adverse symptoms may include the following: pain or irritation redness dryness cracking |
| Ingestion | blistering may occurAdverse symptoms may include the following: stomach pains |
| Indication of immediate me | dical attention and special treatment needed, if necessary |
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. If it |

| 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. |
|----------------------------|---|
| | 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 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|--------------------------------|--|
| 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 co | ntainment 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. |

Product code 00239670 Product name SIGMASHIELD 460 BASE (LEAD FREE)

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 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. |
| Advice on general soccupational 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 | |
|---|--|--|
| X /lene | TLV (Philippines, 4/2016). [Xylene] | |
| | TLV: 0.1 mg/m ³ 8 hours. | |
| Talc , not containing asbestiform fibres | TLV (Philippines, 4/2016). | |
| - | TLV: 20 mppf 8 hours. Form: Dust | |
| crystalline silica, respirable powder (<10 microns) | TLV (Philippines, 4/2016). | |
| | TLV: 10 mg/m ³ / (%SiO2+2) 8 hours. Form: | |
| | Respirable dust | |
| ethylbenzene | TLV (Philippines, 4/2016). | |
| • | TLV-Ceiling: 435 mg/m ³ 8 hours. | |
| | TLV-Ceiling: 100 ppm 8 hours. | |
| 2-methylpropan-1-ol | TLV (Philippines, 4/2016). | |
| | TLV: 300 mg/m ³ 8 hours. | |
| | TLV: 100 ppm 8 hours. | |

| Recommended monitoring | : If this product contains ingredients with exposure limits, personal, workplace |
|------------------------|--|
| procedures | 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. |

Product name SIGMASHIELD 460 BASE (LEAD FREE)

Section 8. Exposure controls/personal protection

| a | |
|-------------------------------------|---|
| 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. |
| ndividual protection measu | res |
| 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 | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. |
| 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 | : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

AppearancePhysical state: Liquid.Color: VariousOdor: Aromatic.Odor threshold: Not available.

Section 9. Physical and chemical properties

| - | | | | | | | | |
|---|----|-----------------------|--------------|------------------------|-------------------|------------------------|-------------|---------------|
| Melting point/freezing point | : | Not available. | | | | | | |
| Boiling point, initial boiling point, and boiling range | : | >37.78°C (>100°F) | | | | | | |
| Flammability | ÷ | Not available. | | | | | | |
| Lower and upper explosive (flammable) limits | : | Not available. | | | | | | |
| Flash point | : | Closed cup: 31.9°C | (89.4°F) | | | | | |
| Auto-ignition temperature | : | 415°C (779°F) | | | | | | |
| Decomposition temperature | 1 | Not available. | | | | | | |
| рН | 1 | Not applicable. | | | | | | |
| Viscosity | : | Kinematic (40°C): > | 21 mm²/s | | | | | |
| Viscosity | : | 60 - 100 s (ISO 6mr | n) | | | | | |
| Solubility(ies) | | Media | Re | sult | | | | |
| oolubility(les) | | cold water | No | t solubl | le | | | |
| Partition coefficient: n- octanol/water | : | Not applicable. | | | | | | |
| Vapor pressure | ; | | Vapo | Vapor Pressure at 20°C | | Vapor pressure at 50°C | | |
| | | Ingredient name | mm Hg | kPa | Method | mm Hg | kPa | Method |
| | | 2-methylpropan-1-ol | <12 | <1.6 | DIN EN 13016-2 | | | |
| Relative density | : | 1.66 | | • | | | • | · |
| Relative vapor density | : | Not available. | | | | | | |
| Particle characteristics | | | | | | | | |
| Median particle size | ÷ | Not applicable. | | | | | | |
| Evaporation rate | : | Not available. | | | | | | |
| Section 10. Stabilit | ty | and reactivi | ity | | | | | |
| Reactivity | : | No specific test data | a related to | reactiv | vity available fo | or this pro | oduct or it | ts ingredient |
| Chemical stability | : | The product is stabl | e. | | | | | |

| 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 Hazardous polymerization | Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides Under normal conditions of storage and use, hazardous polymerization will not occur. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|------------|----------|
| Epoxy resin (MW ≤ 700) | LD50 Dermal | Rabbit | >2 g/kg | - |
| , | LD50 Oral | Rat | >2 g/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| 4-nonylphenol, branched | LD50 Dermal | Rabbit | 2.14 g/kg | - |
| | LD50 Oral | Rat | 1300 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| 2-methylpropan-1-ol | LC50 Inhalation Vapor | Rat | 24.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 2460 mg/kg | - |
| | LD50 Oral | Rat | 2830 mg/kg | - |

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

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------|-------------|
| Epoxy resin (MW ≤ 700) | Eyes - Mild irritant | Rabbit | - | - | - |
| | Skin - Mild irritant | Rabbit | - | - | - |
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 | - |
| | | | | mg | |
| 4-nonylphenol, branched | Skin - Erythema/Eschar | Rabbit | 4 | - | - |
| | • | | * | • | • |

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

| Product/ingredient name | Route of exposure | Species | Result | |
|------------------------------|-------------------|----------------------------|-----------------|--|
| Epoxy resin (MW ≤ 700) | skin | Mouse | Sensitizing | |
| Conclusion/Summary | -1 | | | |
| Skin | : There are r | o data available on the m | nixture itself. | |
| Respiratory | : There are r | o data available on the m | nixture itself. | |
| <u>Mutagenicity</u> | | | | |
| Conclusion/Summary | : There are r | o data available on the m | nixture itself. | |
| Carcinogenicity | | | | |
| Conclusion/Summary | : There are r | o data available on the m | nixture itself. | |
| Reproductive toxicity | | | | |
| Conclusion/Summary | : There are r | o data available on the m | nixture itself. | |
| Teratogenicity | | | | |
| Conclusion/Summary | : There are r | no data available on the m | nixture itself. | |
| Specific target organ toxici | ity (single expo | <u>sure)</u> | | |

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|---------------------------------|
| x ylene | Category 3 | - | Respiratory tract irritation |
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| 2-methylpropan-1-ol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | | Route of exposure | Target organs |
|---|------------|-------------------|----------------|
| crystalline silica, respirable powder (<10 microns) | Category 1 | inhalation | - |
| ethylbenzene | Category 2 | - | hearing organs |

Aspiration hazard

| Name | Result |
|---------------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| 2-methylpropan-1-ol | ASPIRATION HAZARD - Category 2 |

| Information on the likely routes of exposure | : | Not available. |
|--|-------------|---|
| Potential acute health effects | 2 | |
| Eye contact | : | Causes serious eye damage. |
| Inhalation | : | Harmful if inhaled. |
| Skin contact | : | May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : | May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. |
| Symptoms related to the phy | <u>/sic</u> | cal, chemical and toxicological characteristics |
| Eye contact | : | Adverse symptoms may include the following: pain watering redness |
| Inhalation | : | No specific data. |
| Skin contact | | Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur |
| Ingestion | - | Adverse symptoms may include the following: stomach pains |
| Delayed and immediate effect | :ts | and also chronic effects from short and long term exposure |
| Short term exposure | | |
| Potential immediate effects | : | Not available. |
| Potential delayed effects | : | Not available. |
| | | |

Section 11. Toxicological information

| Long term exposure | |
|------------------------------|---|
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Potential chronic health eff | ects |
| Not available. | |
| 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. |
| 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 |
|------------------------------|---------------|
| Oral | 4109.54 mg/kg |
| Dermal | 2459.03 mg/kg |
| Inhalation (vapors) | 16.09 mg/l |
| Inhalation (dusts and mists) | 2.07 mg/l |

Other information

Causes digestive tract burns. 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

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Toxicity

| Product/ingredient name | Result | Species | Exposure |
|----------------------------|---------------------------------|--------------------------------|----------|
| Epoxy resin (MW ≤ 700) | Acute LC50 1.8 mg/l | Daphnia | 48 hours |
| | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |
| 4-nonylphenol, branched | Acute EC50 0.044 mg/l | Crustaceans - Moina macrocopa | 48 hours |
| | Acute LC50 0.221 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - Ceriodaphnia dubia | - |
| 2-methylpropan-1-ol | Acute EC50 1100 mg/l | Daphnia | 48 hours |
| Phenol, 2-nonyl-, branched | Acute LC50 0.017 mg/l | Fish - Pleuronectes americanus | 96 hours |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|-----------|---|------|----------|
| Epoxy resin (MW ≤ 700) ethylbenzene | OECD 301F | 5 % - 28 days 79 % - Readily - 10 days | - | - |
| eurybenzene | - | 79 70 - Readily - To days | - | - |

Section 12. Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Epoxy resin (MW ≤ 700) | - | - | Not readily |
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|--------|-------------|-----------|
| Epoxy resin (MW ≤ 700) | 3 | 31 | low |
| xylene | 3.12 | 7.4 to 18.5 | low |
| 4-nonylphenol, branched | 5.4 | 251.19 | low |
| ethylbenzene | 3.6 | 79.43 | low |
| 2-methylpropan-1-ol | 1 | - | low |

Mobility in soil

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

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

Other adverse effects

The generation of waste should be avoided or minimized wherever possible. 2 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 | ΙΑΤΑ |
|----------------------------|--|--------|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | | III | III |
| Environmental hazards | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

Philippines

Product code 00239670 Version 7.05 Date of issue 15 November 2022 Product name SIGMASHIELD 460 BASE (LEAD FREE) Section 14. Transport information **Marine pollutant** Not applicable. (Epoxy resin (MW \leq 700), Not applicable. substances 4-nonylphenol, branched) **Additional information** UN : None identified. IMDG : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 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 Section 15. Regulatory information International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

| <u>History</u> | |
|--------------------------------|--|
| Date of issue/Date of revision | : 15 November 2022 |
| Date of previous issue | : 6/25/2021 |
| Version | : 7.05 |
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| 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 |

Procedure used to derive the classification

Section 16. Other information

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 5 | Calculation method |
| ACUTE TOXICITY (dermal) - Category 5 | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 4 | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| AQUATIC HAZARD (ACUTE) - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 1 | Calculation method |
| | |

✓ Indicates information that has changed from previously issued version.

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