SAFETY DATA SHEET



Date of issue/Date of revision23 October 2023Version 3.01

| Section 1. Identification | | |
|--|---|--|
| Product code | : 00345819 | |
| Product name | : SIGMAFAST 278 BASE (TINTED) | |
| Product type | : Liquid. | |
| Relevant identified uses o | f 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 | : FLAMMABLE LIQUIDS - Category 3 |
|-----------------------|---|
| substance or mixture | SKIN CORROSION/IRRITATION - Category 1 |
| | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| | SKIN SENSITISATION - Category 1 |
| | REPRODUCTIVE TOXICITY - Category 2 |
| | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |
| | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |

GHS label elements, including precautionary statements

| Hazard pictograms | |
|--------------------------|---|
| Signal word | : Danger |
| Hazard statements | Flammable liquid and vapour. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | |

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Section 2. Hazards identification

| Prevention | : | To 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. |
|---|---|--|
| Response | : | Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing 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. Immediately call a POISON CENTER or doctor. |
| Storage | : | Not applicable. |
| Disposal | ÷ | Not applicable. |
| Other hazards which do not result in classification | : | Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. |

Section 3. Composition/information on ingredients

| Substance/mixture | 1 | Mixture |
|-------------------|---|---------|
|-------------------|---|---------|

CAS number/other identifiers

| CAS number | : Not applicable. |
|------------|-------------------|
| EC number | : Mixture. |

| Ingredient name | % | CAS number |
|---|------------|------------|
| s-[4-(2,3-epoxipropoxi)phenyl]propane | 10 - <20 | 1675-54-3 |
| crystalline silica, respirable powder (<10 microns) | 5 - <10 | 14808-60-7 |
| 4-nonylphenol, branched | 5 - <10 | 84852-15-3 |
| xylene | 5 - <10 | 1330-20-7 |
| Talc , not containing asbestiform fibres | 5 - <10 | 14807-96-6 |
| 1-methoxy-2-propanol | 1 - <3 | 107-98-2 |
| ethylbenzene | 1 - <3 | 100-41-4 |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 1 - <3 | 68609-97-2 |
| Fatty acids, C14-18 and C16-18-unsatd., maleated | 0.1 - <0.3 | 85711-46-2 |
| maleic anhydride | <0.1 | 108-31-6 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

| Eye contact | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. |
|--------------|--|
| Inhalation | Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use 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 ef | fects | |
| Eye contact | : Causes serious eye damage. | |
| Inhalation | : No known significant effects or critical hazards. | |
| Skin contact | : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction. | |
| Ingestion | : Corrosive to the digestive tract. Causes burns. | |
| Over-exposure signs/syr | nptoms | |
| Eye contact | : Adverse symptoms may include the following: pain watering redness | |
| Inhalation | : Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations | |
| Skin contact | : Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations | |
| Ingestion | : Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations | |
| Indication of immediate m | edical 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. | |

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Section 4. First aid measures

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 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 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 | acuate surrour ering. Do not flares, smokin ovide adequate | e taken involving any personal risk or without suitable training. Iding areas. Keep unnecessary and unprotected personnel from touch or walk through spilt material. Shut off all ignition sources. Ig or flames in hazard area. Do not breathe vapour or mist. e ventilation. Wear appropriate respirator when ventilation is on appropriate personal protective equipment. |
|--------------------------------|---|---|
| For emergency responders | ormation in Sec | hing is required to deal with the spillage, take note of any ction 8 on suitable and unsuitable materials. See also the or non-emergency personnel". |

Section 6. Accidental release measures

| Environmental precautions | 1 | 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 f | or contai | inment and cleaning up |
|------------------------|-----------|--|
| Small spill | : | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| Large spill | : | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the 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. 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. |
|--|--|
| 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. |

Section 7. Handling and storage

| Conditions for safe storage, including any | : 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 |
|--|--|
| | |
| incompatibilities | 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

Occupational exposure limits

| Exposure limits |
|--|
| ACGIH TLV (United States, 1/2022). [Silica crystalline] TWA: 0.025 mg/m ³ 8 hours. Form: |
| Respirable 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): 2 mg/m ³ 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). [Propylene glycol monomethyl ether] |
| 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. |
| Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 1 mg/m ³ 8 hours. PEL (long term): 0.25 ppm 8 hours. |
| |

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Section 8. Exposure controls/personal protection

| - | | |
|-------------------------------------|------|---|
| 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 measu | ures | |
| Hygiene measures | : | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : | Chemical splash goggles and face shield. |
| Skin protection | | |
| Hand protection | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately 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

| : L | .iquid. | | |
|------|---|--|--|
| : V | /arious | | |
| : A | Aromatic. | | |
| : ir | nsoluble in water. | | |
| : > | •37.78°C (>100°F) | | |
| : 0 | Closed cup: 38°C (100.4°F) | | |
| | lighest known value: 0.84 (ethylbenzene) Weighted average: 0.79compared with outyl acetate | | |
| : li | quid | | |
| | fighest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted iverage: 0.37 kPa (2.78 mm Hg) (at 20°C) | | |
| | fíghest known value: 11.7 (Air = 1) (bis-[4-(2,3-epoxipropoxi)phenyl]propane). Veighted average: 8.34 (Air = 1) | | |
| : 1 | .62 | | |
| ľ | Media Result | | |
| : | old water Not soluble | | |
| : Ĺ | owest known value: 270°C (518°F) (1-methoxy-2-propanol). | | |
| : K | Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt) | | |
| | : V : A : ir : > : C : H b : Ii : ■ 2 : 1 : ■ 2 : 1 : ■ 2 : 1 : ■ 2 : 1 : ■ 2 : 1 : ■ 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : | | |

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 halogenated compounds metal oxide/oxides |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|------------------------|---------|-------------|----------|
| øs-[4-(2,3-epoxipropoxi) phenyl]propane | LD50 Dermal | Rabbit | 23000 mg/kg | - |
| | LD50 Oral | Rat | 15000 mg/kg | - |
| 4-nonylphenol, branched | LD50 Dermal | Rabbit | 2.14 g/kg | - |
| | LD50 Oral | Rat | 1300 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| - | LD50 Oral | Rat | 4.3 g/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 | - |
| oxirane, mono[| LD50 Oral | Rat | 17100 mg/kg | - |
| (C12-14-alkyloxy)methyl] | | | | |
| derivs. | | | | |
| maleic anhydride | LD50 Dermal | Rabbit | 2620 mg/kg | - |
| - | LD50 Oral | Rat | 400 mg/kg | - |

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

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---------------------------------------|---------|-------|--------------|-------------|
| b ís-[4-(2,3-epoxipropoxi) phenyl]propane | Eyes - Mild irritant | Rabbit | - | 24 hours | - |
| | Eyes - Redness of the conjunctivae | Rabbit | 0.4 | 24 hours | - |
| | Skin - Oedema | Rabbit | 0.5 | 4 hours | - |
| | Skin - Erythema/Eschar | Rabbit | 0.8 | 4 hours | - |
| | Skin - Mild irritant | Rabbit | - | 4 hours | - |
| 4-nonylphenol, branched | Skin - Erythema/Eschar | Rabbit | 4 | - | - |
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 | - |
| | | | | mg | |

Conclusion/Summary

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

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Respiratory
                          : There are no data available on the mixture itself.
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| - | | | - |
|-----|------|------|-----|
| Sol | ncit | isat | ion |
| Je | ιэι | ισαι | ισπ |

Skin

Eyes

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|---------------------|----------------------------|
| bis-[4-(2,3-epoxipropoxi) phenyl]propane oxirane, mono[(C12-14-alkyloxy)methyl] | skin skin | Mouse Guinea pig | Sensitising Sensitising |
| derivs. | | | |

Section 11. Toxicological information

| Conclusion/Summary | |
|---------------------------|--|
| Skin | : There are no data available on the mixture itself. |
| Respiratory | : There are no data available on the mixture itself. |
| Mutagenicity | |
| Conclusion/Summary | : There are no data available on the mixture itself. |
| Carcinogenicity | |
| Conclusion/Summary | : There are no data available on the mixture itself. |
| Reproductive toxicity | |
| Conclusion/Summary | : There are no data available on the mixture itself. |
| Teratogenicity | |
| Conclusion/Summary | : There are no data available on the mixture itself. |

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|---------------------------------|
| x ylene | Category 3 | - | Respiratory tract irritation |
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |
| Fatty acids, C14-18 and C16-18-unsatd., maleated | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

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

Information on likely routes : Not available.

| or expectate | |
|------------------------|--|
| Potential acute health | <u>effects</u> |
| Eye contact | : Causes serious eye damage. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : Corrosive to the digestive tract. Causes burns. |
| | |

Symptoms related to the physical, chemical and toxicological characteristics

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Section 11. Toxicological information

| | • |
|--------------|---|
| Eye contact | : Adverse symptoms may include the following: pain watering redness |
| Inhalation | : Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations |
| Skin contact | : Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations |
| Ingestion | : Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations |

| 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 | ects |
| 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 | : Suspected of damaging fertility or the unborn child. |

Numerical measures of toxicity Acute toxicity estimates

Section 11. Toxicological information

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| Route | ATE value | |
|------------------------------|----------------|--|
| Øral | 11880.88 mg/kg | |
| Dermal | 9054.84 mg/kg | |
| Inhalation (vapours) | 49.85 mg/l | |
| Inhalation (dusts and mists) | 6.4 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 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 |
|---------------------------|-----------------------------------|--------------------------------|----------|
| bis-[4-(2,3-epoxipropoxi) | Acute LC50 1.8 mg/l Fresh water | Daphnia - <i>daphnia magna</i> | 48 hours |
| phenyl]propane | - | | |
| | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |
| 4-nonylphenol, branched | Acute EC50 0.044 mg/l | Crustaceans - Moina macrocopa | 48 hours |
| 51 | Acute LC50 0.221 mg/l | Fish | 96 hours |
| 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/l Fresh water | Daphnia - Ceriodaphnia dubia | - |
| oxirane, mono[| LC50 >100 mg/l | Fish | 96 hours |
| (C12-14-alkyloxy)methyl] | 5 | | |
| derivs. | | | |

Persistence/degradability

| Product/ingredient name | Test | Result | | Dose | Inoculum |
|---|-----------------|-------------------------|--------------|------|--------------------|
| ethylbenzene | - | 79 % - Readily - 10 | days | - | - |
| Conclusion/Summary | : There are n | o data available on the | mixture itse | lf. | |
| Product/ingredient name | Aquatic half-li | fe | Photolysis | S | Biodegradability |
| øĩs-[4-(2,3-epoxipropoxi) phenyl]propane | - | | - | | Not readily |
| xylene ethylbenzene | - | | - - | | Readily Readily |

Bioaccumulative potential

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

Section 12. Ecological information

| - | <u> </u> | | |
|--|----------------------------------|--|---------------------------------|
| Product/ingredient name | LogPow | BCF | Potential |
| A-nonylphenol, branched xylene 1-methoxy-2-propanol ethylbenzene oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 5.4 3.12 <1 3.6 3.77 | 251.19 7.4 to 18.5 - 79.43 - | Low Low Low Low Low |
| maleic anhydride | -2.78 | - | Low |

Mobility in soil

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

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

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 | UN3470 | UN3470 | UN3470 |
| UN proper shipping name | PAINT, CORROSIVE, FLAMMABLE | PAINT, CORROSIVE, FLAMMABLE | PAINT, CORROSIVE, FLAMMABLE |
| Transport hazard class(es) | 8 (3) | 8 (3) | 8 (3) |
| Packing group | II | II | |
| Environmental hazards | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
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Product code 00345819

Product name SIGMAFAST 278 BASE (TINTED)

Section 14. Transport information

| Marine pollutant Not applicable. substances | (bis-[4-(2,3-epoxipropoxi) phenyl]propane, 4-nonylphenol, branched) | 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

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

| Ingredient name | Status |
|---|--------|
| ronylphenol and nonylphenol ethoxylates | Listed |

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

History

| Date of issue/Date of revision | : 23 October 2023 |
|--------------------------------|---|
| Date of previous issue | : 5/18/2021 |
| Version | : 3.01 |
| 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 = International Air Transport Association IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, |

Section 16. Other information

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

V Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.