# **SAFETY DATA SHEET**



Date of issue/Date of revision 21 May 2021 Version 5.01

| Section 1. Identification                                  |   |  |
|--|---|--|
| Product code   | : 00249291  |  |
| Product name   | : SIGMACOVER 456 BASE CNC1098   |  |
| Product type   | : Liquid.   |  |
| Relevant identified uses o                                 | f the substance or mixture and uses advised against   |  |
| Product use  | Coating.<br>Professional applications, Used by spraying.  |  |
| Supplier's details   | : PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803.<br>Tel +65 68653737 |  |
| Emergency telephone<br>number (with hours of<br>operation) | : CHEMTREC +(65)-31581349 (CCN 17704)   |  |

## Section 2. Hazards identification

| Classification of the substance or mixture | : FLAMMABLE LIQUIDS - Category 2<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN CORROSION/IRRITATION - Category 2<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A<br>SKIN SENSITIZATION - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 |
|--|--|
|  | AQUATIC HAZARD (LONG-TERM) - Category 2  |

GHS label elements, including precautionary statements

| Hazard pictograms        |   |
|--------------------------|---|
| Signal word              | : Danger  |
| Hazard statements        | : Highly flammable liquid and vapor.<br>Causes skin irritation. |
|                          | May cause an allergic skin reaction.                            |
|                          | Causes serious eye irritation.<br>Harmful if inhaled.           |
|                          | Causes damage to organs through prolonged or repeated exposure. |
|                          | Toxic to aquatic life with long lasting effects.                |
| Precautionary statements |   |

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### 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. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.  |
|---|---|--|
| Response  | : | Collect spillage. Get medical advice or attention if you feel unwell. IF INHALED:<br>Call a POISON CENTER or doctor if you feel unwell. Take off contaminated<br>clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin<br>irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse<br>cautiously with water for several minutes. Remove contact lenses, if present and<br>easy to do. Continue rinsing. If eye irritation persists: Get medical advice or<br>attention. |
| Storage   | : | Store in a well-ventilated place. Keep cool.   |
| Disposal  | : | Dispose of contents and container in accordance with all local, regional, national and international regulations.  |
| Other hazards which do not result in classification | : | Frolonged or repeated contact may dry skin and cause irritation.   |

## Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

#### CAS number/other identifiers

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

| Ingredient name   | %          | CAS number  |
|---|------------|-------------|
| vrystalline silica, respirable powder (<10 microns)                       | 25 - <50   | 14808-60-7  |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-  | 25 - <50   | 67989-52-0  |
| 2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers |            |             |
| xylene  | 10 - <20   | 1330-20-7   |
| ethylbenzene  | 5 - <10    | 100-41-4    |
| Talc , not containing asbestiform fibres                                  | 3 - <5     | 14807-96-6  |
| 2-methylpropan-1-ol   | 1 - <3     | 78-83-1     |
| Octadecanamide, N,N'-1,6-hexanediylbis[12-hydroxy-                        | 0.3 - <1   | 55349-01-4  |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine    | 0.1 - <0.3 | 100545-48-0 |

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                                 | <ul> <li>Remove contact lenses, irrigate copiously with clean, fresh water, holding the<br/>eyelids apart for at least 10 minutes and seek immediate medical advice.</li> </ul>                  |  |
| 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                                | <ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and<br/>water or use recognized skin cleanser. Do NOT use solvents or thinners.</li> </ul>                       |  |
| Ingestion                                   | <ul> <li>If swallowed, seek medical advice immediately and show this container or label.</li> <li>Keep person warm and at rest. Do NOT induce vomiting.</li> </ul>                               |  |

| Most important symptoms/    | effects, acute and delayed  |
|-----------------------------|---|
| Potential acute health effe | <u>cts</u>  |
| Eye contact                 | : Causes serious eye irritation.  |
| Inhalation                  | : Harmful if inhaled.   |
| Skin contact                | : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.   |
| Ingestion                   | : No known significant effects or critical hazards.   |
| Over-exposure signs/sym     | <u>ptoms</u>  |
| Eye contact                 | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness  |
| Inhalation                  | : No specific data.   |
| Skin contact                | : Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking   |
| Ingestion                   | : No specific data.   |
| Indication of immediate me  | dical attention and special treatment needed, if necessary  |
| Notes to physician          | <ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large<br/>quantities have been ingested or inhaled.</li> </ul>   |
| Specific treatments         | : No specific treatment.  |
| Protection of first-aiders  | : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

| Extinguishing media                               |  |
|---|--|
| Suitable extinguishing media                      | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.   |
| Unsuitable extinguishing media                    | : Do not use water jet.  |
| Specific hazards arising from the chemical        | : Highly 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 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:<br>carbon oxides<br>halogenated compounds<br>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<br>equipment for fire-fighters | <ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained<br/>breathing apparatus (SCBA) with a full face-piece operated in positive pressure<br/>mode.</li> </ul>  |

### Section 6. Accidental release measures

| Personal precautions, protective equipment and emergency procedures |   |  |
|---|---|--|
| For non-emergency<br>personnel                                      | <ul> <li>No action shall be taken involving any personal risk or without suitable training.</li> <li>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from<br/>entering. Do not touch or walk through spilled material. Shut off all ignition sources.</li> <li>No flares, smoking or flames in hazard area. Avoid breathing vapor or mist.</li> <li>Provide adequate ventilation. Wear appropriate respirator when ventilation is<br/>inadequate. Put on appropriate personal protective equipment.</li> </ul> |  |
| For emergency responders  | If specialized clothing is required to deal with the spillage, take note of any<br>information in Section 8 on suitable and unsuitable materials. See also the<br>information in "For non-emergency personnel".   |  |
| Environmental precautions   | Avoid dispersal of spilled material and runoff and contact with soil, waterways,<br>drains and sewers. Inform the relevant authorities if the product has caused<br>environmental pollution (sewers, waterways, soil or air). Water polluting material.<br>May be harmful to the environment if released in large quantities. Collect spillage.   |  |
| Methods and materials for containment and cleaning up               |   |  |
| Small spill   | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.  |  |

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### Section 6. Accidental release measures

#### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

### Precautions for safe handling

| Protective measures  | : Fut 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 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,<br>including any<br>incompatibilities | : Storage temperature: 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 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   |
|--|---|
| rystalline silica, respirable powder (<10 microns) | ACGIH TLV (United States, 3/2020).<br>TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: |
|  | Respirable  |
| xylene   | Workplace Safety and Health Act   |
|  | (Singapore, 2/2006).  |
|  | PEL (short term): 651 mg/m <sup>3</sup> 15 minutes.                               |
|  | PEL (short term): 150 ppm 15 minutes.   |
|  | PEL (long term): 434 mg/m <sup>3</sup> 8 hours.                                   |
| a thu dha a mara a a                               | PEL (long term): 100 ppm 8 hours.   |
| ethylbenzene                                       | Workplace Safety and Health Act (Singapore, 2/2006).                              |
|  | PEL (short term): 543 mg/m <sup>3</sup> 15 minutes.                               |
|  | PEL (short term): 125 ppm 15 minutes.   |
|  | PEL (long term): 434 mg/m <sup>3</sup> 8 hours.                                   |
|  | PEL (long term): 100 ppm 8 hours.   |
| Talc , not containing asbestiform fibres           | Workplace Safety and Health Act   |
|  | (Singapore, 2/2006).  |
|  | PEL (long term): 2 mg/m <sup>3</sup> 8 hours.                                     |
| 2-methylpropan-1-ol                                | Workplace Safety and Health Act   |
|  | (Singapore, 2/2006).  |
|  | PEL (long term): 152 mg/m <sup>3</sup> 8 hours.                                   |
|  | PEL (long term): 50 ppm 8 hours.  |

atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Appropriate engineering controls
   Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
   Environmental exposure
   Emissions from ventilation or work process equipment should be checked to ensure
- controls comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures** 

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# Section 8. Exposure controls/personal protection

| Hygiene measures       | : Wash hands, forearms and face thoroughly after handling chemical products, before<br>eating, smoking and using the lavatory and at the end of the working period.<br>Appropriate techniques should be used to remove potentially contaminated clothing.<br>Contaminated work clothing should not be allowed out of the workplace. Wash<br>contaminated clothing before reusing. Ensure that eyewash stations and safety<br>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<br>be worn at all times when handling chemical products if a risk assessment indicates<br>this is necessary. Considering the parameters specified by the glove manufacturer,<br>check during use that the gloves are still retaining their protective properties. It<br>should be noted that the time to breakthrough for any glove material may be<br>different for different glove manufacturers. In the case of mixtures, consisting of<br>several substances, the protection time of the gloves cannot be accurately<br>estimated. |
| Gloves                 | : butyl rubber  |
| Body protection        | : Personal protective equipment for the body should be selected based on the task<br>being performed and the risks involved and should be approved by a specialist<br>before handling this product. When there is a risk of ignition from static electricity,<br>wear anti-static protective clothing. For the greatest protection from static<br>discharges, clothing should include anti-static overalls, boots and gloves.   |
| Other skin protection  | <ul> <li>Appropriate footwear and any additional skin protection measures should be<br/>selected based on the task being performed and the risks involved and should be<br/>approved by a specialist before handling this product.</li> </ul>   |
| 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

| <u>Appearance</u>         |  |
|---------------------------|--|
| Physical state            | : Liquid.  |
| Color                     | : Blue.  |
| Odor                      | : Aromatic.  |
| рН                        | insoluble in water.  |
| Boiling point             | : >37.78°C (>100°F)  |
| Flash point               | : Closed cup: 20°C (68°F)  |
| Evaporation rate          | <ul> <li>Highest known value: 0.84 (ethylbenzene) Weighted average: 0.79compared with<br/>butyl acetate</li> </ul>               |
| Flammability (solid, gas) | : liquid   |
| Vapor pressure            | : Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol).<br>Weighted average: 1.04 kPa (7.8 mm Hg) (at 20°C) |
| Vapor density             | : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.65 (Air = 1)  |
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### Section 9. Physical and chemical properties

| Relative density          | : 1.39   |
|---------------------------|--|
| Solubility                | : Insoluble in the following materials: cold water.        |
| Auto-ignition temperature | : Lowest known value: 415°C (779°F) (2-methylpropan-1-ol). |
| Viscosity                 | : <b>K</b> inematic (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: oxidizing 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 |
|---|---------------------------------|---------|-------------|----------|
| <b>xy</b> lene  | LD50 Dermal                     | Rabbit  | 1.7 g/kg    | -        |
|   | LD50 Oral                       | Rat     | 4.3 g/kg    | -        |
| ethylbenzene  | LC50 Inhalation Vapor           | Rat     | 17.8 mg/l   | 4 hours  |
| 5   | 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  |
| 51 1  | LD50 Dermal                     | Rabbit  | 2460 mg/kg  | -        |
|   | LD50 Oral                       | Rat     | 2830 mg/kg  | -        |
| Octadecanoic acid,  | LC50 Inhalation Dusts and mists | Rat     | 5.05 mg/l   | 4 hours  |
| 12-hydroxy-, reaction<br>products with<br>ethylenediamine |                                 |         |             |          |
| ,   | LD50 Oral                       | Rat     | >2000 mg/kg | -        |

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

### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure           | Observation |
|-------------------------|--------------------------|---------|-------|--------------------|-------------|
| vylene                  | Skin - Moderate irritant | Rabbit  |       | 24 hours 500<br>mg | -           |

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

### Section 11. Toxicological information

- Conclusion/SummarySkin: There are no data available on the mixture itself.Eyes: There are no data available on the mixture itself.
  - : There are no data available on the mixture itself.

#### Respiratory Sensitization

| Product/ingredient name   | Route of exposure | Species    | Result      |
|---|-------------------|------------|-------------|
| Octadecanoic acid,<br>12-hydroxy-, reaction<br>products with<br>ethylenediamine | skin              | Guinea pig | Sensitizing |

#### Conclusion/Summary

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

#### Specific target organ toxicity (single exposure)

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

#### Specific target organ toxicity (repeated exposure)

| Name |            | Route of<br>exposure | Target organs  |
|------|------------|----------------------|----------------|
|      | Category 1 | inhalation           | -              |
|      | Category 2 | -                    | hearing organs |

### Aspiration hazard

| Name | Result   |
|------|--|
|      | ASPIRATION HAZARD - Category 1<br>ASPIRATION HAZARD - Category 1 |

### Section 11. Toxicological information

| Information on the likely routes of exposure             | :                | Not available.  |
|--|------------------|---|
| Potential acute health effect                            | :ts              |   |
| Eye contact  |                  | Causes serious eye irritation.  |
| Inhalation   |                  | Harmful if inhaled.   |
| 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 pl                               | <u>hysi</u>      | cal, chemical and toxicological characteristics   |
| Eye contact  | :                | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness  |
| Inhalation   | 1                | No specific data.   |
| Skin contact   | :                | Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking   |
| Ingestion  | :                | No specific data.   |
|  | <u>ects</u>      | and also chronic effects from short and long term exposure  |
| Short term exposure                                      |                  |   |
| Potential immediate<br>effects                           | :                | Not available.  |
| Potential delayed effects                                | :                | Not available.  |
| Long term exposure                                       |                  |   |
| Potential immediate<br>effects                           | :                | Not available.  |
|  |                  | Not available.  |
| Potential delayed effects                                | - ÷              |   |
| Potential delayed effects<br>Potential chronic health ef |                  | <u>S</u>  |
|  | fect             | <ul> <li>S</li> <li>Causes 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.</li> </ul> |
| Potential chronic health ef                              | <u>fect</u><br>: | Causes 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  |
| Potential chronic health ef<br>General                   | fect<br>:        | Causes 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.                                |

### Numerical measures of toxicity

Acute toxicity estimates

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### Section 11. Toxicological information

| Route               | ATE value                                |
|---------------------|--|
| Inhalation (vapors) | 4613.88 mg/kg<br>20.63 mg/l<br>2.36 mg/l |

#### Other information

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

### Section 12. Ecological information

#### **Toxicity**

| Product/ingredient name   | Result                                     | Species   | Exposure             |
|---|--|---|----------------------|
| ethylbenzene  | Acute LC50 150 to 200 mg/l Fresh water     | Fish  | 96 hours             |
| 2-methylpropan-1-ol   | Acute EC50 1100 mg/l                       | Daphnia   | 48 hours             |
| Octadecanoic acid,<br>12-hydroxy-, reaction<br>products with<br>ethylenediamine | Acute EC50 >100 mg/l                       | Algae - Pseudokirchneriella<br>subcapitata            | 72 hours             |
|   | Acute EC50 >10 mg/l<br>Acute LC50 >10 mg/l | Daphnia - Daphnia magna<br>Fish - Oncorhynchus mykiss | 48 hours<br>96 hours |

**Conclusion/Summary** 

: There are no data available on the mixture itself.

#### Persistence/degradability

| Product/ingredient name | Test  | Result         | Dose | Inoculum |
|-------------------------|---|----------------|------|----------|
| 12-hydroxy-, reaction   | 301D Ready<br>Biodegradability -<br>Closed Bottle<br>Test | 22 % - 28 days | -    | -        |

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

| Product/ingredient name   | Aquatic half-life | Photolysis | Biodegradability               |
|---|-------------------|------------|--------------------------------|
| ✓ylene<br>ethylbenzene<br>Octadecanoic acid,<br>12-hydroxy-, reaction<br>products with<br>ethylenediamine | -                 | -          | Readily<br>Readily<br>Inherent |

#### **Bioaccumulative potential**

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### Section 12. Ecological information

| Product/ingredient name  | LogPow                    | BCF                            | Potential                 |
|--|---------------------------|--------------------------------|---------------------------|
| xylene<br>ethylbenzene<br>2-methylpropan-1-ol<br>Octadecanoic acid,<br>12-hydroxy-, reaction<br>products with<br>ethylenediamine | 3.12<br>3.6<br>1<br>>5.86 | 7.4 to 18.5<br>79.43<br>-<br>- | low<br>low<br>low<br>high |

#### **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 minimized wherever possible.<br>Disposal of this product, solutions and any by-products should at all times comply<br>with the requirements of environmental protection and waste disposal legislation<br>and any regional local authority requirements. Dispose of surplus and non-<br>recyclable products via a licensed waste disposal contractor. Waste should not be<br>disposed of untreated to the sewer unless fully compliant with the requirements of<br>all authorities with jurisdiction. Waste packaging should be recycled. Incineration or                           |
|------------------|--|
|                  | landfill should only be considered when recycling is not feasible. This material and<br>its container must be disposed of in a safe way. Care should be taken when<br>handling emptied containers that have not been cleaned or rinsed out. Empty<br>containers or liners may retain some product residues. Vapor from product residues<br>may create a highly flammable or explosive atmosphere inside the container. Do<br>not cut, weld or grind used containers unless they have been cleaned thoroughly<br>internally. Avoid dispersal of spilled material and runoff and contact with soil,<br>waterways, drains and sewers. |

### Section 14. Transport information

|                            | UN   | IMDG   | ΙΑΤΑ   |
|----------------------------|--|--------|--|
| UN number                  | UN1263   | UN1263 | UN1263   |
| UN proper<br>shipping name | PAINT  | PAINT  | PAINT  |
| Transport hazard class(es) | 3  | 3      | 3  |
| Packing group              | II   | II     | II   |
| Environmental<br>hazards   | Yes. The environmentally<br>hazardous substance mark is<br>not required. | Yes.   | Yes. The environmentally hazardous substance mark is not required. |
| Singapore Engli            | sh (US)  |        | Page: 12/1   |

### Section 14. Transport information

| Marine pollutant<br>substances | Not applicable. | <ul> <li>(4,4'-Isopropylidenediphenol,<br/>oligomeric reaction products<br/>with 1-chloro-</li> <li>2,3-epoxypropane, reaction<br/>products with fatty acids,<br/>C18-unsatd., dimers)</li> </ul> | 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

None.

### 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 | : 21 May 2021 |
|--------------------------------|---------------|
| Date of previous issue         | : 5/17/2020   |
| Version                        | : 5.01        |
| Prepared by                    | : EHS         |

### Section 16. Other information

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

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.