## Section 1. Identification

| Product code | $: 000001099982$ |
| :--- | :--- |
| Product name | $:$ SIGMACOVER 456 BASE BLUE 1199 |
| Other means of identification |  |
| 00141188 | $:$ Liquid. |

## Relevant identified uses of the substance or mixture and uses advised against

| Product use | Coating. |
| :---: | :---: |
|  | Professional applications, Used by spraying |

Supplier's details : PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737

Emergency telephone : CHEMTREC +(65)-31581349 (CCN 17704) number (with hours of operation)

## Section 2. Hazards identification

| Classification of the | $:$ FLAMMABLE LIQUIDS - Category 3 |
| :--- | :--- |
| substance or mixture | ACUTE TOXICITY (inhalation) - Category 4 |
|  | SKIN CORROSION/IRRITATION - Category 2 |
|  | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A |
|  | SKIN SENSITISATION - Category 1 |

GHS label elements, including precautionary statements
Hazard pictograms
:


Signal word
Hazard statements
: Warning
: Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled.

Precautionary statements

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## Section 2. Hazards identification

| Prevention | $:$ Wear protective gloves. Wear eye or face protection. Keep away from heat, hot <br> surfaces, sparks, open flames and other ignition sources. No smoking. Avoid <br> breathing vapour. Wash thoroughly after handling. |
| :--- | :--- |
| Response | $:$IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off <br> contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of <br>  <br> water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: <br>  <br>  <br> Rinse cautiously with water for several minutes. Remove contact lenses, if present <br> and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or <br> attention. |
| Storage | : Not applicable. |
| Disposal | : Not applicable. |

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

## Section 3. Composition/information on ingredients

Substance/mixture
: Mixture
CAS number/other identifiers
CAS number : Not applicable.
EC number : Mixture.

| Ingredient name | $\%$ | CAS number |
| :--- | :--- | :--- |
| Epoxy Resin | $20-<25$ | SUB110652 |
| xylone | $10-<20$ | $1330-20-7$ |
| epoxy resin (MW $\leq 700$ ) | $5-<10$ | $25068-38-6$ |
| Talc, not containing asbestiform fibres | $1-<3$ | $14807-96-6$ |
| ethylbenzene | $1-<3$ | $100-41-4$ |
| 2-methylpropan-1-ol | $1-<3$ | $78-83-1$ |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid | $0.3-<1$ | $911674-82-3$ |
| and 1,3-phenylenedimethanamine |  | $100545-48-0$ |
| Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | $0.1-<0.3$ |  |

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

Occupational exposure limits, if available, are listed in Section 8.
SUB codes represent substances without registered CAS Numbers.

## Section 4. First aid measures

## Description of necessary first aid measures

Eye contact
Inhalation

Skin contact
: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
: 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.
: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

## Section 4. First aid measures

| Ingestion | : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting. |
| :---: | :---: |
| Most important symptoms/effects, acute and delayed |  |
| Potential acute health effects |  |
| Eye contact | Causes serious eye irritation. |
| Inhalation | : Harmful if inhaled. |
| Skin contact | Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | No known significant effects or critical hazards. |
| Over-exposure signs/symptoms |  |
| Eye contact | : Adverse symptoms may include the following: pain or irritation <br> watering <br> redness |
| Inhalation | No specific data. |
| Skin contact | : Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | No specific data. |
| Indication of immediate medical attention and special treatment needed, if necessary |  |
| Notes to physician | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| 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. Firefighting measures

## Extinguishing media

| Suitable extinguishing |
| :--- |
| media |


| Unsuitable extinguishing |
| :--- |
| media |

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.

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| :---: | :---: |
| Section 5. Firefighting measures |  |
| Hazardous thermal decomposition products |  |
| Special protective actions for fire-fighters | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| Section 6. Accidental release measures |  |
| Personal precautions, protective equipment and emergency procedures |  |
| For non-emergency personnel | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| Environmental precautions | : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Methods and material 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. |
| 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 noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

# Section 7. Handling and storage 

## Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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, : Store between the following temperatures: 0 to $35^{\circ} \mathrm{C}\left(32\right.$ to $\left.95^{\circ} \mathrm{F}\right)$. Store in including any
incompatibilities accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

## Control parameters

## Occupational exposure limits

| Ingredient name | Exposure limits |
| :---: | :---: |
| xylene | Workplace Safety and Health Act (Singapore, 2/2006). [Xylene] <br> PEL (short term): $651 \mathrm{mg} / \mathrm{m}^{3} 15$ minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): $434 \mathrm{mg} / \mathrm{m}^{3} 8$ hours. PEL (long term): 100 ppm 8 hours. |
| Talc , not containing asbestiform fibres <br> ethylbenzene | Workplace Safety and Health Act (Singapore, 2/2006). <br> PEL (long term): $2 \mathrm{mg} / \mathrm{m}^{3} 8$ hours. Workplace Safety and Health Act (Singapore, 2/2006). <br> PEL (short term): $543 \mathrm{mg} / \mathrm{m}^{3} 15$ minutes. PEL (short term): 125 ppm 15 minutes. PEL (long term): $434 \mathrm{mg} / \mathrm{m}^{3} 8$ hours. |

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## Section 8. Exposure controls/personal protection

PEL (long term): 100 ppm 8 hours.
2-methylpropan-1-ol
Workplace Safety and Health Act (Singapore, 2/2006).
PEL (long term): $152 \mathrm{mg} / \mathrm{m}^{3} 8$ hours. PEL (long term): 50 ppm 8 hours.
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine

ACGIH TLV (United States).
TWA: $3 \mathrm{mg} / \mathrm{m}^{3}$, (Respirable fraction)

## Recommended monitoring

 procedures
## Appropriate engineering controls

## Environmental exposure controls

: 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.

## Individual protection measures

Hygiene measures

Eye/face protection

## Skin protection

Hand protection

Gloves
Body protection

Other skin protection
: 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.
: Chemical splash goggles.
: 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.
: butyl rubber
: 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.
: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

## Section 9. Physical and chemical properties

| Appearance |  |
| :---: | :---: |
| Physical state | : Liquid. |
| Colour | : Blue. |
| Odour | : Aromatic. |
| pH | : insoluble in water. |
| Boiling point | : >37.78 ${ }^{\circ} \mathrm{C}$ ( $>100^{\circ} \mathrm{F}$ ) |
| Flash point | : Closed cup: $25^{\circ} \mathrm{C}\left(77^{\circ} \mathrm{F}\right)$ |
| Evaporation rate | Highest known value: 0.84 (ethylbenzene) Weighted average: 0.77 compared with butyl acetate |
| Flammability (solid, gas) | : liquid |
| Vapour pressure | Highest known value: $<1.6 \mathrm{kPa}(<12 \mathrm{~mm} \mathrm{Hg})$ (at $20^{\circ} \mathrm{C}$ ) (2-methylpropan-1-ol). Weighted average: $0.97 \mathrm{kPa}(7.28 \mathrm{~mm} \mathrm{Hg})\left(\right.$ at $\left.20^{\circ} \mathrm{C}\right)$ |
| Vapour density | : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.64 (Air = 1) |
| Relative density | : 1.42 |
| Solubility(ies) | Media Result |
| S | cold water Not soluble |
| Auto-ignition temperature | : Lowest known value: $415^{\circ} \mathrm{C}$ ( $779^{\circ} \mathrm{F}$ ) (2-methylpropan-1-ol). |
| Viscosity | : Kinematic ( $40^{\circ} \mathrm{C}\left(104^{\circ} \mathrm{F}\right)$ ): >21 mm²/s (>21 cSt) |

## Section 10. Stability and reactivity

## Reactivity

Chemical stability : The product is stable.
Possibility of hazardous reactions

## Conditions to avoid

Incompatible materials products.
: No specific test data related to reactivity available for this product or its ingredients.
: Under normal conditions of storage and use, hazardous reactions will not occur.
: When exposed to high temperatures may produce hazardous decomposition
: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

## Section 10. Stability and reactivity

Hazardous decomposition

products $\quad$\begin{tabular}{l}

: | Depending on conditions, decomposition products may include the following |
| :--- |
| materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds |
| metal oxide/oxides |

\end{tabular}

## Section 11. Toxicological information

## Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
| :---: | :---: | :---: | :---: | :---: |
| xylene | LD50 Dermal | Rabbit | $1.7 \mathrm{~g} / \mathrm{kg}$ | - |
|  | LD50 Oral | Rat | $4.3 \mathrm{~g} / \mathrm{kg}$ | - |
| epoxy resin (MW $\leq 700$ ) | LD50 Dermal | Rabbit | $>2 \mathrm{~g} / \mathrm{kg}$ | - |
|  | LD50 Oral | Rat | $>2 \mathrm{~g} / \mathrm{kg}$ | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
|  | LD50 Dermal | Rabbit | 17.8 g/kg |  |
|  | LD50 Oral | Rat | $3.5 \mathrm{~g} / \mathrm{kg}$ | - |
| 2-methylpropan-1-ol | LC50 Inhalation Vapour | Rat | 24.6 mg/l | 4 hours |
|  | LD50 Dermal | Rabbit | 2460 mg/kg |  |
|  | LD50 Oral | Rat | 2830 mg/kg |  |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and <br> 1,3-phenylenedimethanamine Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | LC50 Inhalation Dusts and mists | Rat | >5.08 mg/l | 4 hours |
|  | LC50 Inhalation Dusts and mists | Rat | 5.05 mg/l | 4 hours |
|  | 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 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 | - |
| epoxy resin (MW $\leq 700)$ | Eyes - Mild irritant <br> Skin - Mild irritant | Rabbit <br> Rabbit | - | - | - |

## Conclusion/Summary

Skin : There are no data available on the mixture itself.
Eyes : There are no data available on the mixture itself.
Respiratory : There are no data available on the mixture itself.

## Sensitisation

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## Section 11. Toxicological information

| Product/ingredient name | Route of <br> exposure | Species | Result |
| :--- | :--- | :--- | :--- |
| epoxy resin (MW $\leq 700)$ <br> Octadecanoic acid, <br> 12-hydroxy-, reaction <br> products with <br> ethylenediamine | skin <br> skin | Mouse <br> Guinea pig | Sensitising <br> Sensitising |

## 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 <br> exposure | Target organs |
| :--- | :--- | :--- | :--- |
| Talc, not containing asbestiform fibres | Category 3 | - | Respiratory tract <br> irritation <br> Respiratory tract <br> irritation <br> Respiratory tract <br> irritation <br> Narcotic effects |
| 2-methylpropan-1-ol | Category 3 | - | - |

## Specific target organ toxicity (repeated exposure)

| Name | Category | Route of <br> exposure | Target organs |
| :--- | :--- | :--- | :--- |
| ethylbenzene | Category 2 | - | hearing organs |

## Aspiration hazard

| Name | Result |
| :--- | :--- |
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on likely routes : Not available.
of exposure

## Potential acute health effects

$$
\text { Eye contact } \quad \text { : Causes serious eye irritation. }
$$

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## Section 11. Toxicological information

| 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 physical, chemical and toxicological characteristics |  |
| Eye contact | : Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation | : No specific data. |
| Skin contact | : Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | : No specific data. |
| Delayed and immediate effects as well as chronic effects from short and long-term exposure |  |
| Short term exposure |  |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Long term exposure |  |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Potential chronic health effects |  |
| General | : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| Carcinogenicity | : No known significant effects or critical hazards. |
| Mutagenicity | : No known significant effects or critical hazards. |
| Reproductive toxicity | : No known significant effects or critical hazards. |

## Numerical measures of toxicity

## Acute toxicity estimates

| Route | ATE value |
| :--- | :--- |
| Dermal | $7823.95 \mathrm{mg} / \mathrm{kg}$ |
| Inhalation (vapours) | $33.11 \mathrm{mg} / \mathrm{l}$ |
| Inhalation (dusts and mists) | $4.25 \mathrm{mg} / \mathrm{I}$ |

Other information :

Singapore
English (GB)
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## Section 11. Toxicological information

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

## Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Exposure |
| :---: | :---: | :---: | :---: |
| epoxy resin (MW $\leq 700$ ) <br> ethylbenzene <br> 2-methylpropan-1-ol Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine | Acute LC50 $1.8 \mathrm{mg} / \mathrm{l}$ | Daphnia | 48 hours |
|  | Chronic NOEC $0.3 \mathrm{mg} / \mathrm{l}$ | Daphnia | 21 days |
|  | Acute EC50 $1.8 \mathrm{mg} / \mathrm{l}$ Fresh water | Daphnia | 48 hours |
|  | Chronic NOEC $1 \mathrm{mg} / \mathrm{l}$ Fresh water | Daphnia - Ceriodaphnia dubia |  |
|  | Acute EC50 $1100 \mathrm{mg} / \mathrm{l}$ | Daphnia | 48 hours |
|  | Acute LC50 > $100 \mathrm{mg} / \mathrm{l}$ | Fish | 96 hours |
|  | Acute EC50 > $100 \mathrm{mg} / \mathrm{l}$ | Algae - Pseudokirchneriella subcapitata | 72 hours |
|  | Acute EC50 $>10 \mathrm{mg} / \mathrm{l}$ Acute LC50 $>10 \mathrm{mg} / \mathrm{l}$ | Daphnia - Daphnia magna Fish - Oncorhynchus mykiss | 48 hours 96 hours |

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

## Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
| :--- | :--- | :--- | :--- | :--- |
| epoxy resin (MW $\leq 700)$ | OECD 301F | $5 \%-28$ days | - | - |
| ethylbenzene | - | - | - |  |
| Octadecanoic acid, <br> 12-hydroxy-, reaction <br> products with <br> ethylenediamine | 301D Ready | Biodegradability - | $22 \%-28$ days | - |

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

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
| :--- | :--- | :--- | :--- |
| xylene | - | - | Readily |
| epoxy resin (MW $\leq 700)$ | - | - | Not readily |
| ethylbenzene |  |  |  |
| Octadecanoic acid, |  |  |  |
| 12-hydroxy-, reaction |  |  |  |
| products with |  |  |  |
| ethylenediamine |  |  |  |

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## Section 12. Ecological information

## Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
| :--- | :--- | :--- | :--- |
| xylene | 3.12 | 7.4 to 18.5 | Low |
| epoxy resin (MW $\leq 700)$ | 3 | 31 | Low |
| ethylbenzene | 3.6 | 79.43 | Low |
| 2-methylpropan-1-ol | 1 | - | High |
| Octadecanoic acid, | $>5.86$ |  |  |
| 12-hydroxy-, reaction |  |  |  |
| products with |  |  |  |
| ethylenediamine |  |  |  |

## Mobility in soil

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

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

## Section 13. Disposal considerations

: 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 | IATA |
| :--- | :---: | :---: | :---: |
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper <br> shipping name | PAINT | PAINT | PAINT |
| Transport hazard <br> class(es) | 3 | 3 | 3 |
| Packing group | IIII | III | III |
| Environmental <br> hazards | No. | No. | No. |


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| :--- | :--- | :--- |
| Section 14. Transport information |  |  |
| Marine pollutant <br> substances | Not applicable. | Not applicable. |

Additional information

| UN | $:$ None identified. |
| :--- | :--- |
| IMDG | $:$ None identified. |
| IATA | : None identified. |

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 <br> revision | $: 19$ February 2024 |
| :--- | :--- |
| Date of previous issue | $: 11 / 8 / 2022$ |
| Version | $: 1.02$ |
| 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 $=$ Intermediate 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 |

$\nabla$ Indicates information that has changed from previously issued version.

## Section 16. Other information

## 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.

