SAFETY DATA SHEET

SIGMACOVER 580 HARDENER



Date of issue 28 August 2024

Version 18

1. Product and company identification

| | a company identification | |
|----------------------------------|--|--|
| Product name | : SIGMACOVER 580 HARDENER | |
| Product code | : 00324594 | |
| Product type | : Liquid. | |
| Relevant identified uses of | of the substance or mixture and uses advised against | |
| Product use | : Professional applications, Used by spraying. | |
| Use of the substance/ mixture | : 🖉oating.; Hardener. | |
| Uses advised against | : Not applicable. | |
| Supplier's details | : ₱₱G PMC Japan Co., Ltd., 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803 Japan; Tel: +81-78-574-2777 | |
| Emergency telephone number | : 078 574 2777 | |

2. Hazards identification

| GHS Classification | : AMMABLE LIQUIDS - Category 3 |
|--------------------|--|
| | ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 |
| | SERIOUS EYE DAMAGE - Category 1 |
| | SKIN SENSITIZATION - Category 1 |
| | CARCINOGENICITY - Category 2 |
| | TOXIC TO REPRODUCTION - Category 1B |
| | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 |
| | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 2 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 2 |
| GHS label elements | |
| Hazard pictograms | |
| Signal word | : Danger |

| 2. | Hazards | identific | ation |
|----|---------|-----------|-------|
|----|---------|-----------|-------|

| Hazard statements | : Fammable liquid and vapor. |
|---|--|
| Hazaru Statements | Causes skin irritation. |
| | May cause an allergic skin reaction. |
| | Causes serious eye damage. |
| | Harmful if inhaled. |
| | May cause respiratory irritation. |
| | May cause drowsiness or dizziness. |
| | Suspected of causing cancer. |
| | May damage fertility or the unborn child. |
| | Causes damage to organs. (central nervous system (CNS), kidneys, liver, respiratory organs) |
| | Causes damage to organs through prolonged or repeated exposure. (hearing |
| | organs, nervous system, respiratory organs) |
| | Toxic to aquatic life with long lasting effects. |
| Precautionary statements | |
| Prevention | : Øbtain special instructions before use. Do 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. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. |
| Response | : Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: 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 | : Store locked up. Store in a well-ventilated place. Keep container tightly closed. |
| Disposal | : Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Other hazards which do not result in classification | : Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. |

3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

| CAS number: Not applicableCSCL number: Not available | | | |
|---|----------|------------|------------------------|
| Ingredient name | % | CAS number | CSCL |
| sobutyl alcohol | 25 - <50 | 78-83-1 | 2-3049 |
| Xylene | 20 - <25 | 1330-20-7 | 3-3; 3-60 |
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | 20 - <25 | 68410-23-1 | 7-445 |
| Ethyl Benzene | 3 - <5 | 100-41-4 | 3-28; 3-60 |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 2 - <3 | 90-72-2 | 3-714; 3-762; 3-776 |
| 3,6-diazaoctanethylenediamin | 0.5 - <1 | 112-24-3 | 2-163; 7-5 |

3. Composition/information on ingredients

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.

4. First aid measures

| Description of necessary first aid measures | | |
|---|--|--|
| Eye contact | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. | |
| Inhalation | Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. | |
| Skin contact | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. | |
| Ingestion | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. | |

Most important symptoms/effects, acute and delayed

| Potential acute health effects | |
|--------------------------------|---|
| Eye contact | Causes serious eye damage. |
| Inhalation | Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. |
| Skin contact | Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | Corrosive to the digestive tract. Causes burns. Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression. |
| Over-exposure signs/sympto | <u>ns</u> |
| Eye contact | Adverse symptoms may include the following: pain watering redness |
| Inhalation | Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations |
| Skin contact | Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations |
| | Japan Pago: 3/15 |

| Product code 00324594 Date of issue 28 August 2024 Version | | n 18 |
|--|--|-----------------|
| Product name SIGMACOVER 580 HARDENER | | |
| 4. First aid measu | S | |
| Ingestion | Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations | |
| Indication of immediate me | attention and special treatment needed, if necessary | |
| Notes to physician | In case of inhalation of decomposition products in a fire, symptoms may be The exposed person may need to be kept under medical surveillance for 48 | |
| Specific treatments | No specific treatment. | |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable train is suspected that fumes are still present, the rescuer should wear an appro- mask or self-contained breathing apparatus. It may be dangerous to the per providing aid to give mouth-to-mouth resuscitation. Wash contaminated clo thoroughly with water before removing it, or wear gloves. | priate erson |

See toxicological information (Section 11)

| 5. Fire-fighting measures | |
|--|---|
| Extinguishing media | |
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |
| Specific hazards arising from the chemical | : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is 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 nitrogen 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. |

6. Accidental release measures

| Personal precautions, protec | tive equipment and emergency procedures |
|--------------------------------|--|
| For non-emergency personnel | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | Japan Page: 4/15 |

6. Accidental release measures

| Environmental precautions : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains |
|------------------------------------|---|
| - | and sewers. Inform the relevant authorities if the product has caused environmental |
| | pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to |
| | the environment if released in large quantities. Collect spillage. |

Methods and materials for 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. : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and Large spill 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 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

: 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 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.

Conditions for safe storage : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | | Exposure limits |
|--|---|--|
| sobutyl alcohol | | Japan Society for Occupational Health (Japan, 5/2023). OEL-M: 150 mg/m ³ 8 hours. OEL-M: 50 ppm 8 hours. Industrial Safety and Health Act (Japan, 6/2020). |
| Xylene | | TWA: 50 ppm 8 hours. Industrial Safety and Health Act (Japan, 6/2020). [xylene] TWA: 50 ppm 8 hours. Japan Society for Occupational Health |
| | | (Japan, 5/2023). OEL-M: 50 ppm 8 hours. OEL-M: 217 mg/m ³ 8 hours. |
| Ethyl Benzene | | Japan Society for Occupational Health (Japan, 5/2023). Absorbed through skin. OEL-M: 87 mg/m ³ 8 hours. OEL-M: 20 ppm 8 hours. Industrial Safety and Health Act (Japan, 6/2020). TWA: 20 ppm 8 hours. |
| Recommended monitoring | : Reference should be made to appropri | |
| procedures | | ods for the determination of hazardous |
| Appropriate engineering controls | or other engineering controls to keep we below any recommended or statutory l | se process enclosures, local exhaust ventilation vorker exposure to airborne contaminants imits. The engineering controls also need to s below any lower explosive limits. Use |
| Environmental exposure controls | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. | |
| ndividual protection measu | res | |
| Hygiene measures | eating, smoking and using the lavatory Appropriate techniques should be used Contaminated work clothing should no | d to remove potentially contaminated clothing. t be allowed out of the workplace. Wash Ensure that eyewash stations and safety |
| Eve protection | : Chemical splash goggles and face shi | eld |
| zye protection | | |
| Eye protection <u>Skin protection</u> | | |
| | be worn at all times when handling che this is necessary. Considering the par- check during use that the gloves are st should be noted that the time to breakt | complying with an approved standard should emical products if a risk assessment indicates ameters specified by the glove manufacturer, till retaining their protective properties. It through for any glove material may be ers. In the case of mixtures, consisting of |

8. Exposure controls/personal protection

| | 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. |

9. Physical and chemical properties

| Appearance | | |
|---------------------------|---------------------------|-------------|
| Physical state | : Liquid. | |
| Odor | : Amine-like. | |
| Boiling point | : >37.78°C (>100°F) | |
| Flash point | : Closed cup: 25°C (77°F) | |
| Relative density | : 0.95 | |
| | Media | Result |
| Solubility(ies) | . pold water | Not soluble |
| Auto-ignition temperature | : 430°C (806°F) | |
| Viscosity | : 60 - 100 s (ISO 6mm) | |

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 nitrogen oxides |

11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|------------------------------|-----------------------|---------|------------|----------|
| sobutyl alcohol | LC50 Inhalation Vapor | Rat | 24.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 2460 mg/kg | - |
| | LD50 Oral | Rat | 2830 mg/kg | - |
| Xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| - | LD50 Oral | Rat | 4.3 g/kg | - |
| Ethyl Benzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| 2,4,6-Tris | LD50 Dermal | Rat | 1280 mg/kg | - |
| (dimethylaminomethyl) | | | | |
| phenol | | | | |
| | LD50 Oral | Rat | 1200 mg/kg | - |
| 3,6-diazaoctanethylenediamin | LD50 Dermal | Rabbit | 1465 mg/kg | - |
| | LD50 Oral | Rat | 1716 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------------|-------------|
| Kylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |

Sensitization

| ••••••••••••••••••••••••••••••••••••••• | Route of exposure | Species | Result |
|--|----------------------|------------|-------------|
| Atty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | skin | Mouse | Sensitizing |
| 3,6-diazaoctanethylenediamin | | Guinea pig | Sensitizing |

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------|------------|-------------------|---|
| sobutyl alcohol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Xylene | Category 1 | - | central nervous system (CNS), kidneys, liver, respiratory organs |
| | Category 3 | | Narcotic effects |
| Ethyl Benzene | Category 3 | - | Respiratory tract irritation |
| | · | Ja | apan Page: 8/15 |

11. Toxicological information

| 3,6-diazaoctanethylenediamin | Category 3 Category 3 - | Narcotic effects Respiratory tract irritation |
|------------------------------|----------------------------|---|
|------------------------------|----------------------------|---|

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---------------------------------------|--------------------------|-------------------|--|
| <mark></mark> ¥ylene Ethyl Benzene | Category 1 Category 1 | - | nervous system, respiratory organs hearing organs, |
| | | | nervous system |

Aspiration hazard

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

Information on the likely : Not available. routes of exposure

| Potential acute health effects | |
|--------------------------------|--|
| Eye contact | : Causes serious eye damage. |
| Inhalation | Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. |
| Skin contact | : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : Corrosive to the digestive tract. Causes burns. Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression. |

Symptoms related to the physical, chemical and toxicological characteristics

| Eye contact | : Adverse symptoms may include the following: pain watering redness |
|--------------|---|
| Inhalation | Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations |
| Skin contact | Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations |

11. Toxicological information

| Ir | ŋ | es | tic | on |
|----|---|----|-----|----|
| | | | | |

: Adverse symptoms may include the following: stomach pains reduced fetal weight

increase in fetal deaths skeletal malformations

| Delayed and immediate effect | ts | and also chronic effects from short and long term exposure |
|--------------------------------|-----|--|
| <u>Short term exposure</u> | | |
| Potential immediate effects | 1 | 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 effe | ect | <u>s</u> |
| General | : | 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. |
| Carcinogenicity | : | Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. |
| Mutagenicity | 1 | No known significant effects or critical hazards. |
| Reproductive toxicity | : | May damage fertility or the unborn child. |

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---------------------------------------|------------------|-------------------|--------------------------------|----------------------------------|--|
| SIGMACOVER 580 HARDENER | 27120.0 | 3007.5 | N/A | 12.1 | N/A |
| isobutyl alcohol | 2830 | 2460 | N/A | 11 | N/A |
| Xylene | 4300 | 1700 | N/A | 11 | N/A |
| Ethyl Benzene | 3500 | 17800 | N/A | 17.8 | N/A |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 1200 | 1280 | N/A | N/A | N/A |
| 3,6-diazaoctanethylenediamin | N/A | 300 | N/A | N/A | N/A |

Other information

Zauses digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. 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.

12. Ecological information

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Toxicity

12. Ecological information

| Product/ingredient name | Result | Species | Exposure |
|---|---------------------------------|------------------------------|----------|
| isobutyl alcohol | Acute EC50 1100 mg/l | Daphnia | 48 hours |
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | EC50 4.11 mg/l Fresh water | Algae | 72 hours |
| Ethyl Benzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - Ceriodaphnia dubia | - |
| 2,4,6-Tris | Acute LC50 >100 mg/l | Daphnia | 48 hours |
| (dimethylaminomethyl)phenol | | | |
| | Acute LC50 >100 mg/l | Fish | 96 hours |
| (| | Fish | 96 hour |

Persistence/degradability

| Product/ingredient name | Test | Result | | Dose | | Inoculum |
|---|--|--------|--|------|--|------------|
| Atty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines Ethyl Benzene 2,4,6-Tris (dimethylaminomethyl)phenol | - OECD 301D Ready Biodegradability - Closed Bottle Test | | lays dily - 10 days eadily - 28 days | - | | - |
| Product/ingredient name | Aquatic half-life | | Photolysis | | Biodeg | radability |
| Kylene Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines Ethyl Benzene 2,4,6-Tris (dimethylaminomethyl)phenol | - | | - | | Readily Not rea Readily Not rea | ıdily , |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|------------------------------|---------------|-------------|-----------|
| isobutyl alcohol | 1 | - | Low |
| Xylene | 3.12 | 7.4 to 18.5 | Low |
| Ethyl Benzene | 3.6 | 79.43 | Low |
| 2,4,6-Tris | 0.219 | - | Low |
| (dimethylaminomethyl)phenol | | | |
| 3,6-diazaoctanethylenediamin | -1.66 to -1.4 | - | Low |

| <u>Mobility in soil</u> | |
|---|---------------------------|
| Soil/water partition coefficient (Koc) | : Not available. |
| Mobility | : Not available. |
| Other adverse effects | : No known significant ef |

: No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

| | UN | IMDG | ΙΑΤΑ |
|--------------------------------|------------------------|------------------------|------------------------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | III | = | III |
| Environmental hazards | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

Additional information

| UN | This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.1. |
|------|--|
| IMDG | This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5. |
| ΙΑΤΑ | : 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

Product code 00324594

Product name SIGMACOVER 580 HARDENER

15. Regulatory information

Fire Service Law

| Category | Substance name/Type | Danger category | Signal word | Designated quantity |
|-------------|---------------------|--------------------|----------------------------|---------------------|
| Category IV | Class II petroleums | III | Flammable - Keep Fire Away | 1000 L |

Pollutant Release and Transfer Registers (PRTR)

| Ingredient name | % | Status | Reference number |
|----------------------|-----|---------|---------------------|
| X ylene | 23 | Class 1 | 80 |
| Ethylbenzene | 4.1 | Class 1 | 53 |
| Triethylenetetramine | 1.0 | Class 2 | 278 |

Industrial Safety and Health Act

Ordinance on the Prevention of the Hazard due to Specified Chemical Substances

| Ingredient name | % | | Reference number |
|-----------------|-----|--------------------------|---------------------|
| ethyl benzene | ≤10 | Special Organic Solvents | 3-3 |

Substance(s) requiring labelling

| Ingredient name | % | | Reference number |
|-----------------|-----------|--------|---------------------|
| | ≥20 - ≤30 | Listed | 477 |
| | ≥20 - ≤30 | Listed | 136 |
| Ethylbenzene | ≤10 | Listed | 70 |

Chemicals requiring notification

| Ingredient name | % | | Reference number |
|-----------------|-----------|--------|---------------------|
| Butanol | ≥20 - ≤30 | Listed | 477 |
| Xylene | ≥20 - ≤30 | Listed | 136 |
| Ethylbenzene | ≤10 | Listed | 70 |

Carcinogens based on Article 577-2 of the Ordinance on ISH

None of the components are listed.

Mutagen

None of the components are listed.

| Corrosive liquid | : Not listed |
|---|---------------|
| Occupational Safety and Health Law | : Inflammable |
| Regulations on the Prevention of Tetraalkyl Lead Poisoning | : Not listed |
| Harmful Substances Subject to Obtaining Permission for Manufacturing | : Not listed |

15. Regulatory information

| Harmful Substances, Prohibited for | : Not listed |
|--|---------------|
| | |
| Manufacturing | |
| ISHL Enforcement Order Appendix 1 - Dangerous Substances | : Inflammable |
| Lead regulation | : Not listed |
| Organic solvents poisoning prevention | : Class 2 |

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

| Ingredient name | % | | Reference number |
|-----------------|-----------|---------------------|---------------------|
| K ylene | ≥20 - ≤30 | Priority assessment | 125 |
| Ethylbenzene | ≤10 | Priority assessment | 50 |

High Pressure Gas Control : Not available.

Law

Explosives Control Law

None of the components are listed.

Law concerning prevention : Not available. of pollution of the ocean

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

| JSOH Carcinogen | : Group 2B |
|--|--|
| List of Specially Controlled Industrial Waste | : Not listed |
| Japan inventory | : All components are listed or exempted. |
| Road law | : Not available. |

16. Other information

| History | |
|--------------------------------|------------------|
| Date of issue/Date of revision | : 28 August 2024 |
| Date of previous issue | : 1/16/2020 |
| Version | : 18 |
| Prepared by | : EHS |

16. Other information

| Key to abbreviations | : ADN = European Provisions concerning the International Carriage of Dangerous |
|----------------------|--|
| | Goods by Inland Waterway |
| | ADR = The European Agreement concerning the International Carriage of |
| | Dangerous Goods by Road |
| | ATE = Acute Toxicity Estimate |
| | BCF = Bioconcentration Factor |
| | GHS = Globally Harmonized System of Classification and Labelling of Chemicals |
| | IATA = 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, |
| | 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |
| | RID = The Regulations concerning the International Carriage of Dangerous Goods |
| | by Rail |
| | UN = United Nations |
| | hat has also word from wherein the isoland consist. |

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.