# **SAFETY DATA SHEET**

**SIGMAZINC 102 HS BASE GREY** 



### Date of issue 8 November 2024

Version 2

| 1. Product and company identification |  |  |
|---------------------------------------|--|--|
| Product name                          | : SIGMAZINC 102 HS BASE GREY   |  |
| Product code                          | : 000001099469   |  |
| Other means of<br>identification      | : 100284206; 00480594  |  |
| Product type                          | : Liquid.  |  |
| Relevant identified uses              | of the substance or mixture and uses advised against   |  |
| Product use                           | : Professional applications, Used by spraying.   |  |
| Use of the substance/<br>mixture      | : Coating.   |  |
| Uses advised against                  | : Not applicable.  |  |
| Supplier's details                    | : PPG PMC Japan Co., Ltd., 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803 Japan; Tel: +81-78-574-2777 |  |
| Emergency telephone<br>number         | : 078 574 2777   |  |

# 2. Hazards identification

|  | SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>SKIN SENSITIZATION - Category 1<br>CARCINOGENICITY - Category 1A<br>TOXIC TO REPRODUCTION - Category 1B<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1<br>HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 1<br>HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -<br>Category 1 |
|--|--|
| <u>GHS label elements</u><br>Hazard pictograms |  |
|  |  |
| Oliver all second                              |  |
| Signal word                                    | : Danger   |
| Signal word<br>Hazard statements               | <ul> <li>Danger</li> <li>Flammable liquid and vapor.<br/>Causes skin irritation.</li> </ul>  |
| -  | : Flammable liquid and vapor.<br>Causes skin irritation.<br>May cause an allergic skin reaction.   |
| -  | <ul> <li>Flammable liquid and vapor.</li> <li>Causes skin irritation.</li> <li>May cause an allergic skin reaction.</li> <li>Causes serious eye irritation.</li> </ul>   |
| -  | : Flammable liquid and vapor.<br>Causes skin irritation.<br>May cause an allergic skin reaction.   |
| -  | : Flammable liquid and vapor.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause cancer.  |

### 2. Hazards identification

respiratory organs) Causes damage to organs through prolonged or repeated exposure. (nervous system, respiratory organs) Very toxic to aquatic life with long lasting effects.

| Precautionary statements                            |   |   |
|---|---|---|
| Prevention  |   | Obtain 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. 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<br>ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with<br>water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES:<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   | : | Store locked up.  |
| Disposal  |   | Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| Other hazards which do not result in classification | : | 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 applicable. |
|-------------|-------------------|
| CSCL number | : Not available.  |

| Ingredient name  | %          | CAS number  | CSCL           |
|--|------------|-------------|----------------|
| zínc powder - zinc dust (stabilized)   | 50 - 100   | 7440-66-6   | Not available. |
| Talc (containing no asbestos or quartz)  | 12.5 - <15 | 14807-96-6  | Not available. |
| Epoxy Resin (700 <mw<=1100)< td=""><td>5 - &lt;7</td><td>25036-25-3</td><td>Not available.</td></mw<=1100)<> | 5 - <7     | 25036-25-3  | Not available. |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane  | 5 - <7     | 1675-54-3   | 4-209; 7-1279; |
|  |            |             | 7-1283         |
| Xylene   | 3 - <5     | 1330-20-7   | 3-3; 3-60      |
| Propylene glycol monomethyl ether  | 2 - <3     | 107-98-2    | 2-404; 7-97    |
| Solvent naphtha (petroleum), light aromatic  | 1 - <2     | 64742-95-6  | Not available. |
| 1,2,4-Trimethylbenzene   | 0.5 - <1   | 95-63-6     | 3-3427; 3-7    |
| Ethyl Benzene  | 0.5 - <1   | 100-41-4    | 3-28; 3-60     |
| Reaction products of 12-hydroxyoctadecanoic  | 0.5 - <1   | 911674-82-3 | Not available. |
| acid and octadecanoic acid and   |            |             |                |
| 1,3-phenylenedimethanamine   |            |             |                |
| Zinc oxide   | 0.2 - <0.5 | 1314-13-2   | 1-561          |
| Crystalline silica (quartz)  | 0.1 - <0.2 | 14808-60-7  | 1-548          |
| 1,3,5-Trimethylbenzene   | 0.1 - <0.2 | 108-67-8    | 3-3427; 3-7    |

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.

### 3. Composition/information on ingredients

SUB codes represent substances without registered CAS Numbers.

### 4. First aid measures

| Description of necessary first | st a | id measures   |  |
|--------------------------------|------|---|--|
| Eye contact                    | :    | Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.   |  |
| 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                      | - 1  | If swallowed, seek medical advice immediately and show this container or label.<br>Keep person warm and at rest. Do NOT induce vomiting.  |  |
| Most important symptoms/e      | ffec | ts, acute and delayed   |  |
| Potential acute health effect  | ts   |   |  |
| Eye contact                    | :    | Causes serious eye irritation.  |  |
| Inhalation                     | :    | No known significant effects or critical hazards.   |  |
| 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                      | 1    | Causes damage to organs following a single exposure if swallowed.   |  |
| Over-exposure signs/symp       | ton  | <u>15</u>   |  |
| Eye contact                    | :    | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness  |  |
| Inhalation                     | :    | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |  |
| Skin contact                   | :    | Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |  |
| Ingestion                      | :    | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |  |
| Indication of immediate med    | ica  | l attention and special treatment needed, if necessary  |  |
| Notes to physician             | :    | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.   |  |
| Specific treatments            | :    | No specific treatment.  |  |
| Protection of first-aiders     | :    | No action shall be taken involving any personal risk or without suitable training. If it 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)

### 4. First aid measures

### 5. Fire-fighting measures

| <u>Extinguishing media</u>                     |  |
|--|--|
| 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     | : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous thermal decomposition products       | : Decomposition products may include the following materials:<br>carbon oxides<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 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, protective equipment and emergency procedures

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

# 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. |
|-------------|--|
|             |  |

### 7. Handling and storage

**Precautions for safe** : 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 handling 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  |  |  |
|--|--|--|--|
| ralc , not containing asbestiform fibres | Japan Society for Occupational Health<br>(Japan, 5/2023) [Class 1 dusts (Activated<br>charcoal, Alumina, Aluminium, Bentonite,<br>Diatomite, Graphite, Kaolinite, Pagodite,<br>Pyrites, Pyrite cinder)]<br>OEL-M 8 hours: 2 mg/m <sup>3</sup> . Form: Total dust<br>(Class 1 Dust).<br>OEL-M 8 hours: 0.5 mg/m <sup>3</sup> . Form:<br>Respirable dust (Class 1 Dust). |  |  |
| xylene                                   | Japan Society for Occupational Health<br>(Japan, 5/2023)<br>OEL-M 8 hours: 50 ppm.<br>OEL-M 8 hours: 217 mg/m <sup>3</sup> .<br>Industrial Safety and Health Act (Japan,   |  |  |
|  | Japan Page: 5/16   |  |  |

# 8. Exposure controls/personal protection

| •                                       | · · ·                               |   |
|---|-------------------------------------|---|
|   |                                     | 6/2020) [xylene]<br>TWA 8 hours: 50 ppm.  |
| 1,2,4-trimethylbenzene                  |                                     | Japan Society for Occupational Health   |
|   |                                     | (Japan, 5/2023)   |
|   |                                     | OEL-M 8 hours: 25 ppm.  |
|   |                                     | OEL-M 8 hours: $120 \text{ mg/m}^3$ .   |
| ethylbenzene                            |                                     | Japan Society for Occupational Health   |
| ,                                       |                                     | (Japan, 5/2023) Absorbed through skin.  |
|   |                                     | OEL-M 8 hours: 20 ppm.  |
|   |                                     | OEL-M 8 hours: 87 mg/m <sup>3</sup> .   |
|   |                                     | Industrial Safety and Health Act (Japan,  |
|   |                                     | 6/2020)   |
|   |                                     | TWA 8 hours: 20 ppm.  |
| crystalline silica, respirable p        | owder (<10 microns)                 | Japan Society for Occupational Health   |
|   |                                     | (Japan, 5/2023) [Respirable crystalline   |
|   |                                     | silica]   |
|   |                                     | OEL-C: 0.03 mg/m <sup>3</sup> . Form: Respirable dust.                                  |
| mesitylene                              |                                     | Japan Society for Occupational Health   |
|   |                                     | (Japan, 5/2023)   |
|   |                                     | OEL-M 8 hours: 25 ppm.  |
|   |                                     | OEL-M 8 hours: 120 mg/m <sup>3</sup> .  |
| Recommended monitoring procedures       |                                     | propriate monitoring standards. Reference to methods for the determination of hazardous |
|   |                                     |   |
| Appropriate engineering                 |                                     | n. Use process enclosures, local exhaust ventilation                                    |
| controls                                |                                     | eep worker exposure to airborne contaminants  |
|   |                                     | tory limits. The engineering controls also need to                                      |
|   | explosion-proof ventilation equipm  | ations below any lower explosive limits. Use<br>nent.                                   |
| Environmental exposure                  |                                     | k process equipment should be checked to ensure   |
| controls                                |                                     | s of environmental protection legislation. In some                                      |
|   |                                     | engineering modifications to the process equipment                                      |
|   | will be necessary to reduce emiss   | sions to acceptable levels.   |
| Individual protection measu             | res                                 |   |
| Hygiene measures                        | : Wash hands, forearms and face t   | horoughly after handling chemical products, before                                      |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                                     | atory and at the end of the working period.   |
|   |                                     | used to remove potentially contaminated clothing.                                       |
|   |                                     | ld not be allowed out of the workplace. Wash  |
|   |                                     | sing. Ensure that eyewash stations and safety   |
|   | showers are close to the workstat   | ion location.   |
| Eye protection                          | : Chemical splash goggles.          |   |
| Skin protection                         |                                     |   |
| Hand protection                         | : Chemical-resistant, impervious al | oves complying with an approved standard should   |
|   |                                     | g chemical products if a risk assessment indicates                                      |
|   |                                     | e parameters specified by the glove manufacturer,                                       |
|   |                                     | are still retaining their protective properties. It                                     |
|   |                                     | reakthrough for any glove material may be   |
|   |                                     | acturers. In the case of mixtures, consisting of  |
|   | estimated.                          | n time of the gloves cannot be accurately   |
| 0                                       |                                     |   |
| Gloves                                  | : butyl rubber                      |   |
|   |                                     |   |
|   |                                     |   |

### 8. Exposure controls/personal protection

| -                      | · ·  |
|------------------------|--|
| 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  | : 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.  |
| 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

| Liquid.                   |  |  |  |  |
|---------------------------|--|--|--|--|
| Gray.                     |  |  |  |  |
| Characteristic.           |  |  |  |  |
| >37.78°C (>100°F)         |  |  |  |  |
| Closed cup: 32°C (89.6°F) |  |  |  |  |
| 2.7                       |  |  |  |  |
| Media Result              |  |  |  |  |
| cold water                | Not soluble  |  |  |  |
|                           | Gray.<br>Characteristic.<br>>37.78°C (>100°F)<br>Closed cup: 32°C (89.6°F)<br>2.7<br>Media |  |  |  |

# 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   | : Evolves hydrogen on contact with water. Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides |

# **11. Toxicological information**

### Information on toxicological effects

### Acute toxicity

| Product/ingredient name   | Result                          | Species | Dose                    | Exposure |
|---|---------------------------------|---------|-------------------------|----------|
| zínc powder - zinc dust<br>(stabilized)   | LC50 Inhalation Dusts and mists | Rat     | >5.4 mg/l               | 4 hours  |
|   | LD50 Oral                       | Rat     | >2000 mg/kg             | -        |
| Epoxy Resin (700 <mw<br>&lt;=1100)</mw<br>  | LD50 Dermal                     | Rat     | >2000 mg/kg             | -        |
| ,   | LD50 Oral                       | Rat     | >2000 mg/kg             | -        |
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane   | LD50 Dermal                     | Rabbit  | 23000 mg/kg             | -        |
|   | LD50 Oral                       | Rat     | 15000 mg/kg             | -        |
| Xylene  | LD50 Dermal                     | Rabbit  | 1.7 g/kg                | -        |
| -   | LD50 Oral                       | Rat     | 4.3 g/kg                | -        |
| Propylene glycol<br>monomethyl ether  | LC50 Inhalation Vapor           | Rat     | >7000 ppm               | 6 hours  |
| 2   | LD50 Dermal                     | Rabbit  | 13 g/kg                 | -        |
|   | LD50 Oral                       | Rat     | 5.2 g/kg                | -        |
| Solvent naphtha (petroleum), light aromatic   | LD50 Dermal                     | Rabbit  | 3.48 g/kg               | -        |
| 5   | LD50 Oral                       | Rat     | 8400 mg/kg              | -        |
| 1,2,4-Trimethylbenzene  | LC50 Inhalation Vapor           | Rat     | 18000 mg/m <sup>3</sup> | 4 hours  |
| · · ·   | LD50 Oral                       | Rat     | 5 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                | -        |
| Reaction products of<br>12-hydroxyoctadecanoic<br>acid and octadecanoic acid<br>and<br>1,3-phenylenedimethanamine | LC50 Inhalation Dusts and mists | Rat     | >5.08 mg/l              | 4 hours  |
| Zinc oxide  | LC50 Inhalation Dusts and mists | Rat     | >5700 mg/m³             | 4 hours  |
|   | LD50 Dermal                     | Rat     | >2000 mg/kg             | -        |
|   | LD50 Oral                       | Rat     | >5000 mg/kg             | -        |
| 1,3,5-Trimethylbenzene  | LC50 Inhalation Vapor           | Rat     | 24000 mg/m <sup>3</sup> | 4 hours  |
| ·,-,- · · · · · · · · · · · · · · · · ·   | LD50 Oral                       | Rat     | 5000 mg/kg              | -        |

### Irritation/Corrosion

| Product/ingredient name                     | Result                             | Species | Score | Exposure     | Observation |
|---|------------------------------------|---------|-------|--------------|-------------|
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane | Eyes - Mild irritant               | Rabbit  | -     | 24 hours     | -           |
|   | Eyes - Redness of the conjunctivae | Rabbit  | 0.4   | 24 hours     | -           |
|   | Skin - Edema                       | Rabbit  | 0.5   | 4 hours      | -           |
|   | Skin - Erythema/Eschar             | Rabbit  | 0.8   | 4 hours      | -           |
|   | Skin - Mild irritant               | Rabbit  | -     | 4 hours      | -           |
| Xylene                                      | Skin - Moderate irritant           | Rabbit  | -     | 24 hours 500 | -           |
|   |                                    |         |       | mg           |             |

**Sensitization** 

| •   | Route of exposure | Species | Result      |
|---|-------------------|---------|-------------|
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane | skin              | Mouse   | Sensitizing |

### **Mutagenicity**

Not available.

# 11. Toxicological information

### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

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

| Name  | Category   | Route of exposure | Target organs                                       |
|---|------------|-------------------|---|
| <b>F</b> alc (containing no asbestos or quartz) | Category 1 | -                 | respiratory organs                                  |
| Xylene  | Category 1 | -                 | central nervous<br>system (CNS),<br>kidneys, liver, |
|   |            |                   | respiratory organs                                  |
|   | Category 3 |                   | Narcotic effects                                    |
| Propylene glycol monomethyl ether               | Category 3 | -                 | Narcotic effects                                    |
| Solvent naphtha (petroleum), light aromatic     | Category 3 | -                 | Narcotic effects                                    |
| 1,2,4-Trimethylbenzene                          | Category 3 | -                 | Respiratory tract<br>irritation                     |
|   | Category 3 |                   | Narcotic effects                                    |
| Ethyl Benzene                                   | Category 3 | -                 | Respiratory tract irritation                        |
|   | Category 3 |                   | Narcotic effects                                    |
| Zinc oxide                                      | Category 1 | -                 | respiratory organs, systemic toxicity               |
| 1,3,5-Trimethylbenzene                          | Category 3 | -                 | Respiratory tract<br>irritation                     |
|   | Category 3 |                   | Narcotic effects                                    |

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

| Name   | Category                 | Route of exposure | Target organs   |
|--|--------------------------|-------------------|---|
| ▼alc (containing no asbestos or quartz) Xylene | Category 1<br>Category 1 | -                 | respiratory organs<br>nervous system,<br>respiratory organs |
| 1,2,4-Trimethylbenzene                         | Category 1               | -                 | central nervous<br>system (CNS),<br>respiratory organs      |
| Ethyl Benzene                                  | Category 1               | -                 | hearing organs,<br>nervous system                           |
| Crystalline silica (quartz)                    | Category 1               | -                 | immune system,<br>kidneys,<br>respiratory organs            |
| 1,3,5-Trimethylbenzene                         | Category 1               | -                 | central nervous<br>system (CNS),<br>respiratory organs      |

### **Aspiration hazard**

| Name  | Result                         |
|---|--------------------------------|
| <b>X</b> ylene                              | ASPIRATION HAZARD - Category 1 |
| Solvent naphtha (petroleum), light aromatic | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene                      | ASPIRATION HAZARD - Category 1 |
| Ethyl Benzene                               | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene                      | ASPIRATION HAZARD - Category 1 |

# 11. Toxicological information

| Information on the likely routes of exposure | :   | Not available.   |
|--|-----|--|
| Potential acute health effect                | ts  |  |
| Eye contact                                  | :   | Causes serious eye irritation.   |
| Inhalation                                   | :   | No known significant effects or critical hazards.  |
| 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                                    | :   | Causes damage to organs following a single exposure if swallowed.  |
| Symptoms related to the ph                   | ys  | ical, chemical and toxicological characteristics   |
| Eye contact                                  | :   | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness   |
| Inhalation                                   | :   | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations  |
| Skin contact                                 | :   | Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations  |
| Ingestion                                    | :   | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations  |
| Delayed and immediate effec                  | ts  | and also chronic effects from short and long term exposure   |
| Short term exposure                          |     |  |
| Potential immediate<br>effects               | :   | Not available.   |
| Potential delayed effects                    | 4   | Not available.   |
| <u>Long term exposure</u>                    |     |  |
| Potential immediate<br>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 : May cause cancer. Risk of cancer depends on duration and level of exposure.

- **Mutagenicity** : No known significant effects or critical hazards.
- **Reproductive toxicity** : May damage fertility or the unborn child.

### Numerical measures of toxicity

Acute toxicity estimates

# 11. Toxicological information

| Product/ingredient name  | Oral (mg/<br>kg) | Dermal<br>(mg/kg) | Inhalation<br>(gases)<br>(ppm) | Inhalation<br>(vapors)<br>(mg/l) | Inhalation<br>(dusts<br>and mists)<br>(mg/l) |
|--|------------------|-------------------|--------------------------------|----------------------------------|--|
| SIGMAZINC 102 HS BASE GREY   | 40311.6          | 4704.6            | N/A                            | 166.4                            | N/A  |
| Epoxy Resin (700 <mw<=1100)< td=""><td>2500</td><td>2500</td><td>N/A</td><td>N/A</td><td>N/A</td></mw<=1100)<> | 2500             | 2500              | N/A                            | N/A                              | N/A  |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane  | 15000            | 23000             | N/A                            | N/A                              | N/A  |
| Xylene   | 4300             | 1700              | N/A                            | 11                               | N/A  |
| Propylene glycol monomethyl ether  | 5200             | 13000             | N/A                            | 11                               | N/A  |
| Solvent naphtha (petroleum), light aromatic  | 8400             | 3480              | N/A                            | N/A                              | N/A  |
| 1,2,4-Trimethylbenzene   | 5000             | N/A               | N/A                            | 18                               | N/A  |
| Ethyl Benzene  | 3500             | 17800             | N/A                            | 17.8                             | N/A  |
| Zinc oxide   | N/A              | 2500              | N/A                            | N/A                              | N/A  |
| 1,3,5-Trimethylbenzene   | 5000             | N/A               | N/A                            | 24                               | N/A  |

### **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.

### 12. Ecological information

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### **Toxicity**

| Product/ingredient name   | Result   | Species   | Exposure      |
|---|--|---|---------------|
| zínc powder - zinc dust<br>(stabilized)   | Acute EC50 0.106 mg/l Fresh water                                  | Algae - Pseudokirchneriella<br>subcapitata  | 72 hours      |
| · · · ·   | Acute EC50 354 µg/l Fresh water                                    | Daphnia - <i>Daphnia magna</i>  | 48 hours      |
|   | Chronic EC10 6.3 µg/l  | Daphnia - <i>Daphnia magna</i> -<br>Neonate   | 21 days       |
|   | Chronic LC10 185 µg/l Fresh water                                  | Fish - <i>Oncorhynchus mykiss</i> -<br>Juvenile (Fledgling, Hatchling,<br>Weanling) | 30 days       |
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane   | Acute LC50 1.8 mg/l Fresh water                                    | Daphnia - daphnia magna   | 48 hours      |
|   | Chronic NOEC 0.3 mg/l  | Daphnia   | 21 days       |
| Propylene glycol<br>monomethyl ether  | Acute LC50 23300 mg/l  | Daphnia   | 48 hours      |
|   | Acute LC50 >4500 mg/l Fresh water                                  | Fish  | 96 hours      |
| Solvent naphtha (petroleum), light aromatic   | Acute LC50 8.2 mg/l  | Fish  | 96 hours      |
| Ethyl Benzene   | Acute EC50 1.8 mg/l Fresh water<br>Chronic NOEC 1 mg/l Fresh water | Daphnia<br>Daphnia - <i>Ceriodaphnia dubia</i>                                      | 48 hours<br>- |
| Reaction products of<br>12-hydroxyoctadecanoic<br>acid and octadecanoic acid<br>and | Acute LC50 >100 mg/l   | Fish  | 96 hours      |
| 1,3-phenylenedimethanamine  |  |   |               |
| Zinc oxide  | Acute EC50 0.17 mg/l   | Algae   | 72 hours      |
|   | Acute EC50 0.481 mg/l Fresh water                                  | Daphnia - <i>Daphnia magna</i> -<br>Neonate   | 48 hours      |
|   | Chronic NOEC 0.017 mg/l Fresh water                                | Algae   | 72 hours      |

### Persistence/degradability

# 12. Ecological information

| Product/ingredient name                               | Test              | Result                   |            | Dose |                  | Inoculum |
|---|-------------------|--------------------------|------------|------|------------------|----------|
| Ethyl Benzene   | -                 | 79 % - Readily - 10 days |            | -    |                  | -        |
| Product/ingredient name                               | Aquatic half-life |                          | Photolysis |      | Biodegradability |          |
| bis-[4-(2,3-epoxipropoxi)<br>phenyl]propane<br>Xylene | -                 |                          | -          |      | Not rea          | /        |
| Ethyl Benzene   | -                 |                          | -          |      | Readily          | /        |

### **Bioaccumulative potential**

| Product/ingredient name              | LogPow | BCF         | Potential |
|--------------------------------------|--------|-------------|-----------|
| <b>X</b> ylene                       | 3.12   | 7.4 to 18.5 | Low       |
| Propylene glycol<br>monomethyl ether | <1     | -           | Low       |
| 1,2,4-Trimethylbenzene               | 3.63   | 120.23      | Low       |
| Ethyl Benzene                        | 3.6    | 79.43       | Low       |
| 1,3,5-Trimethylbenzene               | 3.42   | 186.21      | Low       |

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

# 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 and<br>any regional local authority requirements. Dispose of surplus and non-recyclable<br>products via a licensed waste disposal contractor. Waste should not be disposed of<br>untreated to the sewer unless fully compliant with the requirements of all authorities<br>with jurisdiction. Waste packaging should be recycled. Incineration or landfill<br>should only be considered when recycling is not feasible. This material and its<br>container must be disposed of in a safe way. Care should be taken when handling<br>emptied containers that have not been cleaned or rinsed out. Empty containers or<br>liners may retain some product residues. Vapor from product residues may create a<br>highly flammable or explosive atmosphere inside the container. Do not cut, weld or |
|------------------|---|
|                  |   |

# 14. Transport information

### 14. Transport information

|                               | UN   | IMDG                                      | ΙΑΤΑ   |
|-------------------------------|--|---|--|
| UN number                     | UN1263   | UN1263                                    | UN1263   |
| UN proper<br>shipping name    | PAINT  | PAINT                                     | PAINT  |
| Transport hazard<br>class(es) | 3  | 3   | 3  |
| Packing group                 | II   | III                                       | III  |
| Environmental<br>hazards      | Yes. The environmentally<br>hazardous substance mark is<br>not required. | Yes.                                      | Yes. The environmentally<br>hazardous substance mark is<br>not required. |
| Marine pollutant substances   | Not applicable.  | (Zinc powder - zinc dust<br>(stabilized)) | Not applicable.  |

### Additional information

UN

IMDG

ΙΑΤΑ

- : None identified.
  - - : The marine pollutant mark is not required when transported in sizes of  $\leq 5$  L or  $\leq 5$  kg.
  - : 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

# 15. Regulatory information

#### **Fire Service Law**

| Category    | Substance name/Type | Danger<br>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  |     |     |
|------------------|-----|-----|
| Xylene           | 4.1 | 80  |
| Trimethylbenzene | 1.1 | 691 |

### **Industrial Safety and Health Act**

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

None of the components are listed.

#### Substance(s) requiring labelling

# **15. Regulatory information**

| Ingredient name                   | %   | Status | Reference<br>number |
|-----------------------------------|-----|--------|---------------------|
| <b>X</b> ylene                    | ≤10 | Listed | 136                 |
| Propylene glycol monomethyl ether | ≤10 | Listed | 496                 |
| Petroleum naphtha                 | ≤10 | Listed | 330                 |
| Trimethylbenzene                  | ≤10 | Listed | 404                 |
| Ethylbenzene                      | ≤10 | Listed | 70                  |
| Crystalline silica                | ≤10 | Listed | 165-2               |

#### **Chemicals requiring notification**

| Ingredient name                   | %   | Status | Reference<br>number |
|-----------------------------------|-----|--------|---------------------|
| <b>X</b> ylene                    | ≤10 | Listed | 136                 |
| Propylene glycol monomethyl ether | ≤10 | Listed | 496                 |
| Petroleum naphtha                 | ≤10 | Listed | 330                 |
| Trimethylbenzene                  | ≤10 | Listed | 404                 |
| Ethylbenzene                      | ≤10 | Listed | 70                  |
| Zinc oxide                        | ≤10 | Listed | 188                 |
| Crystalline silica                | ≤10 | Listed | 165-2               |

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

| Ingredient name | %   |        | Reference<br>number |
|-----------------|-----|--------|---------------------|
| <b>g</b> úartz  | ≤10 | Listed | -                   |

#### <u>Mutagen</u>

None of the components are listed.

| Corrosive liquid  | : Not listed               |
|---|----------------------------|
| Occupational Safety and Health Law  | : Inflammable, Combustible |
| Regulations on the<br>Prevention of Tetraalkyl<br>Lead Poisoning              | : Not listed               |
| Harmful Substances<br>Subject to Obtaining<br>Permission for<br>Manufacturing | : Not listed               |
| Harmful Substances,<br>Prohibited for<br>Manufacturing                        | : Not listed               |
| ISHL Enforcement Order<br>Appendix 1 - Dangerous<br>Substances                | : Inflammable, Combustible |
| Lead regulation   | : Not listed               |
| Organic solvents poisoning prevention   | : Not applicable.          |

### **Poisonous and Deleterious Substances**

None of the components are listed.

Chemical Substances Control Law (CSCL)

### **15. Regulatory information**

| Ingredient name  | %   | Status              | Reference<br>number |
|--|-----|---------------------|---------------------|
| ✓olycondensate of 4,4'-isopropylidenediphenol and<br>1-chloro-2,3-epoxypropane (liquid only) | ≤10 | Priority assessment | 87                  |
| Xylene   | ≤10 | Priority assessment | 125                 |
| 1,2,4-Trimethylbenzene   | ≤10 | Priority assessment | 49                  |
| Ethylbenzene   | ≤10 | Priority assessment | 50                  |
| 1,3,5-Trimethylbenzene   | ≤10 | Priority assessment | 201                 |
| Toluene  | ≤10 | Priority assessment | 46                  |
| Benzene  | ≤10 | Priority assessment | 45                  |
| Cumene   | ≤10 | Priority assessment | 126                 |
| 4,4'-(Propane-2,2-diyl)diphenol  | ≤10 | Priority assessment | 75                  |
| Epichlorohydrin  | ≤10 | Priority assessment | 22                  |

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 1                                |
|--|--|
| List of Specially Controlled<br>Industrial Waste | : Not listed                             |
| Japan inventory                                  | : All components are listed or exempted. |
| Road law   | : Not available.                         |

### 16. Other information

|                                | Jonan Dago: 45/4  |
|--------------------------------|---|
| Key to abbreviations           | : ADN = European Provisions concerning the International Carriage of Dangerous<br>Goods by Inland Waterway<br>ADR = The European Agreement concerning the International Carriage of<br>Dangerous Goods by Road<br>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>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient |
| Prepared by                    | : EHS   |
| Version                        | : 2   |
| Date of previous issue         | : 4/9/2024  |
| Date of issue/Date of revision | : 8 November 2024   |
| <u>History</u>                 |   |

Japan

### 16. Other information

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

Indicates information that has changed from previously issued version.

#### Notice to reader

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