# **SAFETY DATA SHEET**

SIGMAGUARD 720/730 HARDENER



#### Date of issue 14 October 2024

Version 5.01

| 1. Product and company identification |  |  |
|---------------------------------------|--|--|
| Product name                          | : SIGMAGUARD 720/730 HARDENER  |  |
| Product code                          | : 000001011119   |  |
| Other means of<br>identification      | : 00141194; 00171569; 00171572; 00198747; 00319236   |  |
| 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      | : <b>⊮</b> ardener.; 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

| GHS Classification                                     | <ul> <li>FLAMMABLE LIQUIDS - Category 3<br/>ACUTE TOXICITY (inhalation) - Category 3<br/>SKIN IRRITATION - Category 2<br/>SERIOUS EYE DAMAGE - Category 1<br/>CARCINOGENICITY - Category 1B<br/>TOXIC TO REPRODUCTION - Category 1B<br/>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1<br/>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -<br/>Category 3<br/>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1<br/>HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 2<br/>HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -</li> </ul> |
|--|--|
| GHS label elements<br>Hazard pictograms<br>Signal word | Category 3<br>:<br>:<br>Danger   |

## 2. Hazards identification

| Herend statements          |   | Flammahla limid and una an   |
|----------------------------|---|--|
| Hazard statements          | 1 | Flammable liquid and vapor.<br>Causes skin irritation.   |
|                            |   | Causes skin intation.<br>Causes serious eye damage.  |
|                            |   | Toxic if inhaled.  |
|                            |   | May cause drowsiness or dizziness.   |
|                            |   | May cause 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. (central   |
|                            |   | nervous system (CNS), hearing organs, nervous system, respiratory organs)<br>Toxic to aquatic life.  |
|                            |   | Harmful to aquatic life with long lasting effects.   |
| Precautionary statements   |   |  |
| Prevention                 | : | Obtain special instructions before use. Do not handle until all safety precautions<br>have been read and understood. Wear protective gloves, protective clothing and<br>eye or face protection. Keep away from heat, hot surfaces, sparks, open flames<br>and other ignition sources. No smoking. Use only outdoors or in a well-ventilated<br>area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or<br>smoke when using this product. Wash thoroughly after handling.                        |
| Response                   | : | F exposed or concerned: Call a POISON CENTER or doctor. IF INHALED:<br>Remove person to fresh air and keep comfortable for breathing. Call a POISON<br>CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated<br>clothing. Rinse skin with water. If skin irritation occurs: Get medical advice or<br>attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove<br>contact lenses, if present and easy to do. Continue rinsing. Immediately call a<br>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 | : | Prolonged or repeated contact may dry skin and cause irritation.   |

result in classification

## 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        |
|-----------------------------------|------------|------------|-------------|
| Xylene                            | 10 - <12.5 | 1330-20-7  | 3-3; 3-60   |
| Propylene glycol monomethyl ether | 7 - <10    | 107-98-2   | 2-404; 7-97 |
| methyl isobutyl ketone            | 7 - <10    | 108-10-1   | 2-542       |
| isobutyl alcohol                  | 7 - <10    | 78-83-1    | 2-3049      |
| Ethyl Benzene                     | 2 - <3     | 100-41-4   | 3-28; 3-60  |
| 2-methoxypropanol                 | 0.1 - <0.2 | 1589-47-5  | 7-97        |

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.

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## 4. First aid measures

| <b>Description of necess</b> | ary first aid measures   |
|------------------------------|--|
| Eye contact                  | <ul> <li>Check for and remove any contact lenses. Immediately flush eyes with running<br/>water for at least 15 minutes, keeping eyelids open. Seek immediate medical<br/>attention.</li> </ul>  |
| Inhalation                   | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact                 | <ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and<br/>water or use recognized skin cleanser. Do NOT use solvents or thinners.</li> </ul>                       |
| Ingestion                    | : 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/effects, acute and delayed

|                          | Japan Page: 3/1   |
|--------------------------|---|
| Specific treatments      | : No specific treatment.  |
| Notes to physician       | <ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large<br/>quantities have been ingested or inhaled.</li> </ul>   |
| ndication of immediate n | nedical attention and special treatment needed, if necessary  |
|                          | stomach pains<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |
| Ingestion                | skeletal malformations : Adverse symptoms may include the following:  |
|                          | redness<br>dryness<br>cracking<br>blistering may occur<br>reduced fetal weight<br>increase in fetal deaths  |
| Skin contact             | : Adverse symptoms may include the following:<br>pain or irritation   |
|                          | headache<br>drowsiness/fatigue<br>dizziness/vertigo<br>unconsciousness<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations  |
| Inhalation               | : Adverse symptoms may include the following:<br>nausea or vomiting   |
|                          | pain<br>watering<br>redness   |
| Eye contact              | : Adverse symptoms may include the following:   |
| Over-exposure signs/sy   | central nervous system (CNS) depression.  |
| Ingestion                | <ul> <li>causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin.</li> <li>causes damage to organs following a single exposure if swallowed. Can cause</li> </ul> |
| Skin contact             | <ul> <li>drowsiness or dizziness.</li> <li>Causes damage to organs following a single exposure in contact with skin. Causes</li> </ul>  |
| Inhalation               | <ul> <li>Causes serious eye damage.</li> <li>Toxic if inhaled. Can cause central nervous system (CNS) depression. May cause</li> </ul>  |
| Eye contact              |   |

### 4. First aid measures

**Protection of first-aiders** 

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

#### 5. Fire-fighting measures **Extinguishing media** Suitable extinguishing : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam. media Unsuitable extinguishing : Do not use water jet. media Specific hazards arising : 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 from the chemical risk of a subsequent explosion. This material is toxic to aquatic life. This material is harmful 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 may include the following materials: carbon oxides decomposition products **Special protective actions** : Promptly isolate the scene by removing all persons from the vicinity of the incident if for fire-fighters 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** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. equipment for fire-fighters

## 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. Do not breathe 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.  |

Methods and materials for containment and cleaning up

#### 6. Accidental release measures

| 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 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 handling
Put on appropriate personal protective equipment (see Section 8). 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                                       |
|-----------------------|---|
| <b>x</b> ylene        | Japan Society for Occupational Health                 |
|                       | (Japan, 5/2023)<br>OEL-M 8 hours: 50 ppm.             |
|                       | OEL-M 8 hours: 217 mg/m <sup>3</sup> .                |
|                       | Industrial Safety and Health Act (Japan,              |
|                       | 6/2020) [xylene]                                      |
| 4 methylapartan 2 ana | TWA 8 hours: 50 ppm.                                  |
| 4-methylpentan-2-one  | Japan Society for Occupational Health (Japan, 5/2023) |
|                       | OEL-M 8 hours: 50 ppm.                                |
| ·                     | Japan Page: 5/15                                      |

## 8. Exposure controls/personal protection

| o. Exposure cont                 | iois/personal protection  |   |
|----------------------------------|---|---|
|                                  |   | OEL-M 8 hours: 205 mg/m <sup>3</sup> .<br>Industrial Safety and Health Act (Japan,<br>6/2020)   |
|                                  |   | TWA 8 hours: 20 ppm.  |
| 2-methylpropan-1-ol              |   | Japan Society for Occupational Health   |
|                                  |   | (Japan, 5/2023)   |
|                                  |   | OEL-M 8 hours: 50 ppm.  |
|                                  |   | OEL-M 8 hours: 150 mg/m <sup>3</sup> .  |
|                                  |   | Industrial Safety and Health Act (Japan,  |
|                                  |   | 6/2020)   |
|                                  |   | TWA 8 hours: 50 ppm.  |
| 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.  |
| Decommended menitoring           | . Defense abould be made to environmi   | ete menitering etendende. Deference te  |
| procedures                       | : Reference should be made to appropria<br>national guidance documents for methor<br>substances will also be required.  |   |
|                                  |   |   |
| Appropriate engineering controls | or other engineering controls to keep w<br>below any recommended or statutory li<br>keep gas, vapor or dust concentrations  | e process enclosures, local exhaust ventilation<br>vorker exposure to airborne contaminants<br>mits. The engineering controls also need to<br>below any lower explosive limits. Use   |
|                                  | explosion-proof ventilation equipment.  |   |
| Environmental exposure controls  | they comply with the requirements of e  | cess equipment should be checked to ensure<br>nvironmental protection legislation. In some<br>eering modifications to the process equipment<br>to acceptable levels.  |
| Individual protection measu      | res   |   |
| Hygiene measures                 |   | ughly after handling chemical products, before  |
|                                  | eating, smoking and using the lavatory<br>Appropriate techniques should be used   | and at the end of the working period.<br>I to remove potentially contaminated clothing.<br>Using. Ensure that eyewash stations and  |
| Eye protection                   | : Chemical splash goggles and face shie   | eld.  |
| Skin protection                  |   |   |
| Hand protection                  | Chemical-resistant impervious doves   | complying with an approved standard should  |
|                                  | be worn at all times when handling che<br>this is necessary. Considering the para<br>check during use that the gloves are st<br>should be noted that the time to breakt | mical products if a risk assessment indicates<br>ameters specified by the glove manufacturer,<br>ill retaining their protective properties. It<br>hrough for any glove material may be<br>ers. In the case of mixtures, consisting of |
| Gloves                           | : For prolonged or repeated handling, us  | e the following type of gloves:   |
|                                  | May be used: nitrile rubber<br>Recommended: polyvinyl alcohol (PVA  | .), butyl rubber, Viton®  |
|                                  |   |   |

## 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

| <u>Appearance</u>         |                         |             |  |
|---------------------------|-------------------------|-------------|--|
| Physical state            | : Liquid.               |             |  |
| Color                     | : Colorless.            |             |  |
| Odor                      | : Amine-like.           |             |  |
| Boiling point             | : >37.78°C (>100°F)     |             |  |
| Flash point               | : Closed cup: 26°C (78. | .8°F)       |  |
| Relative density          | : 0.98                  |             |  |
| Solubility(ies)           | . Media                 | Result      |  |
| Condonity (100)           | cold water              | Not soluble |  |
| Auto-ignition temperature | : 290°C (554°F)         |             |  |
| Viscosity                 | : 60 - 100 s (ISO 6mm)  | 1           |  |

## 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                             |

## **11. Toxicological information**

#### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name              | Result                | Species | Dose        | Exposure |
|--------------------------------------|-----------------------|---------|-------------|----------|
| 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    | -        |
| methyl isobutyl ketone               | LC50 Inhalation Vapor | Rat     | 11 mg/l     | 4 hours  |
|                                      | LD50 Dermal           | Rabbit  | >5000 mg/kg | -        |
|                                      | LD50 Oral             | Rat     | 2.08 g/kg   | -        |
| isobutyl alcohol                     | LC50 Inhalation Vapor | Rat     | 24.6 mg/l   | 4 hours  |
|                                      | LD50 Dermal           | Rabbit  | 2460 mg/kg  | -        |
|                                      | LD50 Oral             | Rat     | 2830 mg/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-methoxypropanol                    | LC50 Inhalation Vapor | Rat     | 15000 ppm   | 4 hours  |
|                                      | LD50 Dermal           | Rabbit  | 5660 mg/kg  | -        |
|                                      | LD50 Oral             | Rat     | 5.3 g/kg    | -        |

#### Irritation/Corrosion

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

#### **Sensitization**

Not available.

#### **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   |
|-----------------------------------|--------------------------|-------------------|---|
| Xylene                            | Category 1<br>Category 3 | -                 | central nervous<br>system (CNS),<br>kidneys, liver,<br>respiratory organs<br>Narcotic effects |
| Propylene glycol monomethyl ether | Category 3               | _                 | Narcotic effects  |
| methyl isobutyl ketone            | Category 3               | -                 | Respiratory tract   |
|                                   | Category 3               |                   | Narcotic effects  |
| isobutyl alcohol                  | Category 3               | -                 | Respiratory tract irritation  |
|                                   | Category 3               |                   | Narcotic effects  |
|                                   |                          | Ja                | apan Page: 8/15   |

| 11. | Toxico | logical | information |  |
|-----|--------|---------|-------------|--|
|-----|--------|---------|-------------|--|

| Ethyl Benzene     | Category 3               | - | Respiratory tract   |
|-------------------|--------------------------|---|---|
| 2-methoxypropanol | Category 3<br>Category 3 | - | irritation<br>Narcotic effects<br>Respiratory tract<br>irritation |

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

| Name                   | Category   | Route of exposure | Target organs                         |
|------------------------|------------|-------------------|---------------------------------------|
| Xylene                 | Category 1 | -                 | nervous system,<br>respiratory organs |
| methyl isobutyl ketone | Category 1 | -                 | central nervous<br>system (CNS)       |
| Ethyl Benzene          | Category 1 | -                 | hearing organs,<br>nervous system     |

#### **Aspiration hazard**

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

## Information on the likely : Not available. routes of exposure

| Potential acute health | <u>l effects</u>   |
|------------------------|--|
| Eye contact            | : Causes serious eye damage.   |
| Inhalation             | <ul> <li>Toxic if inhaled. Can cause central nervous system (CNS) depression. May cause<br/>drowsiness or dizziness.</li> </ul>              |
| Skin contact           | : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin.                   |
| Ingestion              | <ul> <li>Causes damage to organs following a single exposure if swallowed. Can cause<br/>central nervous system (CNS) depression.</li> </ul> |

#### Symptoms related to the physical, chemical and toxicological characteristics

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

# 11. Toxicological information

| Ingestion | : Adverse symptoms may include the following:<br>stomach pains<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |
|-----------|--|
|           |  |

| Delayed and immediate effect | <u>nd also chronic effects from short and long term exposure</u>   |    |
|------------------------------|--|----|
| <u>Short term exposure</u>   |  |    |
| Potential immediate effects  | Not available.   |    |
| Potential delayed effects    | lot available.   |    |
| <u>Long term exposure</u>    |  |    |
| Potential immediate effects  | Not available.   |    |
| Potential delayed effects    | lot available.   |    |
| Potential chronic health eff |  |    |
| General                      | Causes damage to organs through prolonged or repeated exposure. Prolonge epeated contact can defat the skin and lead to irritation, cracking and/or derm |    |
| 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

| 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) |
|-----------------------------------|------------------|-------------------|--------------------------------|----------------------------------|--|
| SIGMAGUARD 720/730 HARDENER       | N/A              | 5748.5            | N/A                            | 7.1                              | N/A  |
| Xylene                            | 4300             | 1700              | N/A                            | 11                               | N/A  |
| Propylene glycol monomethyl ether | 5200             | 13000             | N/A                            | 11                               | N/A  |
| methyl isobutyl ketone            | 2080             | N/A               | N/A                            | 3                                | N/A  |
| isobutyl alcohol                  | 2830             | 2460              | N/A                            | 11                               | N/A  |
| Ethyl Benzene                     | 3500             | 17800             | N/A                            | 17.8                             | N/A  |
| 2-methoxypropanol                 | 5300             | 5660              | N/A                            | N/A                              | N/A  |

#### Other information

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 |
|--------------------------------------|-----------------------------------|------------------------------|----------|
| Propylene glycol<br>monomethyl ether | Acute LC50 23300 mg/l             | Daphnia                      | 48 hours |
|                                      | Acute LC50 >4500 mg/l Fresh water | Fish                         | 96 hours |
| methyl isobutyl ketone               | Acute LC50 >179 mg/l              | Fish                         | 96 hours |
| isobutyl alcohol                     | Acute EC50 1100 mg/l              | Daphnia                      | 48 hours |
| Ethyl Benzene                        | Acute EC50 1.8 mg/l Fresh water   | Daphnia                      | 48 hours |
|                                      | Chronic NOEC 1 mg/l Fresh water   | Daphnia - Ceriodaphnia dubia | -        |

#### Persistence/degradability

| Product/ingredient name                           | Test              | Result   |            | Result Dose |                               | Inoculum   |
|---|-------------------|--|------------|-------------|-------------------------------|------------|
| methyl isobutyl ketone<br>Ethyl Benzene           | OECD 301F<br>-    | 83 % - Readily - 28 days<br>79 % - Readily - 10 days - |            | -           |                               | -          |
| Product/ingredient name                           | Aquatic half-life |  | Photolysis |             | Biodeg                        | radability |
| Xylene<br>methyl isobutyl ketone<br>Ethyl Benzene | -                 |  | -<br>-     |             | Readily<br>Readily<br>Readily | ,          |

#### **Bioaccumulative potential**

| Product/ingredient name              | LogPow | BCF         | Potential |
|--------------------------------------|--------|-------------|-----------|
| Xylene                               | 3.12   | 7.4 to 18.5 | Low       |
| Propylene glycol<br>monomethyl ether | <1     | -           | Low       |
| methyl isobutyl ketone               | 1.9    | -           | Low       |
| isobutyl alcohol                     | 1      | -           | Low       |
| Ethyl Benzene                        | 3.6    | 79.43       | Low       |
| 2-methoxypropanol                    | -0.49  | -           | Low       |

| <u>Mobility in soil</u>                |   |
|--|---|
| Soil/water partition 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<br>grind used containers unless they have been cleaned thoroughly internally. Avoid<br>dispersal of spilled material and runoff and contact with soil, waterways, drains and<br>sewers. |
|------------------|---|
|                  |   |

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### FIGULE Hame SIGMAGOARD 720/730 HARDENE

## **13. Disposal considerations**

## 14. Transport information

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

#### **Additional information**

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

## **15. Regulatory information**

#### Fire Service Law

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

#### Pollutant Release and Transfer Registers (PRTR)

| Ingredient name        | %   | Status  | Reference<br>number |
|------------------------|-----|---------|---------------------|
| Xylene                 | 12  | Class 1 | 80                  |
| Methyl isobutyl ketone | 9.0 | Class 1 | 737                 |
| Ethylbenzene           | 2.1 | Class 1 | 53                  |

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

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

| Ingredient name        | % | Status                   | Reference<br>number |
|------------------------|---|--------------------------|---------------------|
| methyl isobutyl ketone |   | Special Organic Solvents | 33-2                |
| ethyl benzene          |   | Special Organic Solvents | 3-3                 |

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## 15. Regulatory information

### Substance(s) requiring labelling

| Ingredient name                   | %         | Status | Reference<br>number |
|-----------------------------------|-----------|--------|---------------------|
| Xylene                            | ≥10 - ≤20 | Listed | 136                 |
| Propylene glycol monomethyl ether | ≤10       | Listed | 496                 |
| Methyl isobutyl ketone            | ≤10       | Listed | 569                 |
| Butanol                           | ≤10       | Listed | 477                 |
| Ethylbenzene                      | ≤10       | Listed | 70                  |

#### **Chemicals requiring notification**

| Ingredient name  | %  | Status   | Reference<br>number            |
|--|--|--|--------------------------------|
| Xylene<br>Propylene glycol monomethyl ether<br>Methyl isobutyl ketone<br>Butanol<br>Ethylbenzene | ≥10 - ≤20<br>≤10<br>≤10<br>≤10<br>≤10<br>≤10 | Listed<br>Listed<br>Listed<br>Listed<br>Listed | 136<br>496<br>569<br>477<br>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<br>Health Law   | : Inflammable             |
| 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             |
| Lead regulation<br>Organic solvents<br>poisoning prevention                   | : Not listed<br>: Class 2 |

#### **Poisonous and Deleterious Substances**

None of the components are listed.

Chemical Substances Control Law (CSCL)

## 15. Regulatory information

| Ingredient name                  | %         | Status              | Reference<br>number |
|----------------------------------|-----------|---------------------|---------------------|
| Xylene                           | ≥10 - ≤20 | Priority assessment | 125                 |
| Methyl isobutyl ketone           | ≤10       | Priority assessment | 116                 |
| Ethylbenzene                     | ≤10       | Priority assessment | 50                  |
| 2,6-Di-tert-butyl-4-methylphenol | ≤10       | Priority assessment | 64                  |

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<br>Industrial Waste | : Not listed                            |
| Japan inventory                                  | : At least one component is not listed. |
| Road law   | : Not available.                        |

## 16. Other information

| <u>History</u>                 |   |
|--------------------------------|---|
| Date of issue/Date of revision | : 14 October 2024   |
| Date of previous issue         | : 7/29/2024   |
| Version                        | : 5.01  |
| Prepared by                    | : EHS   |
| Key to abbreviations           | <ul> <li>ADN = European Provisions concerning the International Carriage of Dangerous<br/>Goods by Inland Waterway</li> <li>ADR = The European Agreement concerning the International Carriage of<br/>Dangerous Goods by Road</li> <li>ATE = Acute Toxicity Estimate</li> <li>BCF = Bioconcentration Factor</li> <li>GHS = Globally Harmonized System of Classification and Labelling of Chemicals</li> <li>IATA = International Air Transport Association</li> <li>IMDG = International Maritime Dangerous Goods</li> <li>LogPow = logarithm of the octanol/water partition coefficient</li> <li>MARPOL = International Convention for the Prevention of Pollution From Ships,<br/>1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)</li> <li>RID = The Regulations concerning the International Carriage of Dangerous Goods<br/>by Rail</li> <li>UN = United Nations</li> </ul> |
| Indicates information that     | t has changed from previously issued version  |

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

### 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.