# SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to GHS UN rev. 7

Date of issue/Date of revision 21 February 2023 Version 9

## Section 1. Identification

| Product code                                    | : 00297162                                                                                                                                                                                                                                                |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                                    | : PSX 700 HARDENER                                                                                                                                                                                                                                        |
| Product type                                    | : Liquid.                                                                                                                                                                                                                                                 |
| Other means of identification<br>Not available. |                                                                                                                                                                                                                                                           |
| Relevant identified uses of th                  | e substance or mixture and uses advised against                                                                                                                                                                                                           |
| Product use                                     | Coating.<br>Professional applications, Used by spraying.                                                                                                                                                                                                  |
| Uses advised against                            | : Product is not intended, labelled or packaged for consumer use.                                                                                                                                                                                         |
| Company/undertaking<br>identification           | <ul> <li>PPG Industries Sales, Inc. and PPG Coatings (Philippines), Inc.<br/>3rd Floor First Life Center</li> <li>174 Salcedo St., Legaspi Village</li> <li>Makati City 1229, Philippines</li> <li>Tel # 00632- 752-6773/ Fax # 00632-752-6771</li> </ul> |
| Emergency telephone<br>number                   | : CHEMTREC +(63) 2-395-3308 (CCN 17704)                                                                                                                                                                                                                   |

## Section 2. Hazards identification

| Classification of the<br>substance or mixture  | <ul> <li>FLAMMABLE LIQUIDS - Category 3<br/>ACUTE TOXICITY (oral) - Category 4<br/>ACUTE TOXICITY (dermal) - Category 5<br/>SKIN CORROSION/IRRITATION - Category 1B<br/>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br/>SKIN SENSITIZATION - Category 1<br/>GERM CELL MUTAGENICITY - Category 2<br/>TOXIC TO REPRODUCTION - Category 1B<br/>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2<br/>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2<br/>AQUATIC HAZARD (ACUTE) - Category 2<br/>AQUATIC HAZARD (LONG-TERM) - Category 2</li> </ul> |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>GHS label elements</u><br>Hazard pictograms |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Signal word                                    | : Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Product code 00297162 Product name PSX 700 HARDENER

# Section 2. Hazards identification

| Hazard statements                                   | : | Flammable liquid and vapor.<br>Harmful if swallowed.<br>May be harmful in contact with skin.<br>Causes severe skin burns and eye damage.<br>May cause an allergic skin reaction.<br>Suspected of causing genetic defects.<br>May damage fertility or the unborn child.<br>May cause damage to organs.<br>May cause damage to organs through prolonged or repeated exposure. (immune<br>system)<br>Toxic 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. Avoid release to the environment. Do not<br>breathe vapor. Do not eat, drink or smoke when using this product. Wash<br>thoroughly after handling. Contaminated work clothing should not be allowed out of<br>the workplace.                                                                                                                                                                                                                                                                                                                               |
| Response                                            | : | Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. IF<br>INHALED: Remove person to fresh air and keep comfortable for breathing.<br>Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call<br>a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON<br>SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.<br>Immediately call a POISON CENTER or doctor. Wash contaminated clothing<br>before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell.<br>Wash with plenty of water. If skin irritation or rash 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Disposal                                            | : | Dispose of contents and container in accordance with all local, regional, national and international regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Other hazards which do not result in classification | : | Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                     | - |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture

**CAS number/other identifiers** 

**CAS** number : Not applicable.

| Ingredient name                         | %        | CAS number |
|-----------------------------------------|----------|------------|
| 3-aminopropyltriethoxysilane            | 50 - 100 | 919-30-2   |
| dibutylbis(pentane-2,4-dionato-O,O')tin | 5 - <10  | 22673-19-4 |
| ethanol                                 | 1 - <3   | 64-17-5    |

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

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

## Section 4. First aid measures

| Description of necessary first aid measures |                                                                                                                                                                                                  |  |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Eye contact                                 | <ul> <li>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                                | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.                                             |  |
| Ingestion                                   | <ul> <li>If swallowed, seek medical advice immediately and show this container or label.</li> <li>Keep person warm and at rest. Do NOT induce vomiting.</li> </ul>                               |  |

| Most important s | <u>symptoms/effects.</u> | <u>acute and</u> | <u>delayed</u> |
|------------------|--------------------------|------------------|----------------|
| Potential acute  | hoalth offocts           |                  |                |

| Potential acute health effe | <u>ts</u>                                                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact                 | : Causes serious eye damage.                                                                                                                                                                                |
| Inhalation                  | : No known significant effects or critical hazards.                                                                                                                                                         |
| Skin contact                | : Causes severe burns. May be harmful in contact with skin. May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause an allergic skin reaction.        |
| Ingestion                   | : Harmful if swallowed. Corrosive to the digestive tract. Causes burns. May cause damage to organs following a single exposure if swallowed.                                                                |
| Over-exposure signs/symp    | <u>toms</u>                                                                                                                                                                                                 |
| Eye contact                 | : Adverse symptoms may include the following:<br>pain<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>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 |
| Ingestion                   | : Adverse symptoms may include the following:<br>stomach pains<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations                                                                |
| Indication of immediate me  | lical attention and special treatment needed, if necessary                                                                                                                                                  |
| Notes to physician          | : In case of inhalation of decomposition products in a fire, symptoms may be delaye<br>The exposed person may need to be kept under medical surveillance for 48 hours                                       |
| Specific treatments         | : No specific treatment.                                                                                                                                                                                    |
| Protection of first-aiders  | : No action shall be taken involving any personal risk or without suitable training. If i is suspected that fumes are still present, the rescuer should wear an appropriate                                 |

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|--------|---------------------------------------------------------------------------------------|
|        | 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.                             |
|        |                                                                                       |

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

| Extinguishing media                               |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media                      | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.                                                                                                                                                                                                                                                                                                                                                                |
| Unsuitable extinguishing media                    | : Do not use water jet.                                                                                                                                                                                                                                                                                                                                                                                                         |
| Specific hazards arising from the chemical        | : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard.<br>In a fire or if heated, a pressure increase will occur and the container may burst, with<br>the risk of a subsequent explosion. This material is toxic to aquatic life with long<br>lasting effects. Fire water contaminated with this material must be contained and<br>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>nitrogen oxides<br>metal oxide/oxides<br>Formaldehyde.                                                                                                                                                                                                                                                                                        |
| Special protective actions for fire-fighters      | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.                                                                                                            |
| Special protective<br>equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                                                                                                                                                                                                                                                           |

# Section 6. Accidental release measures

| Personal precautions, protect  | tive 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.<br>Put on appropriate personal protective equipment. |
| For emergency responders       | If specialized clothing is required to deal with the spillage, take note of any<br>information in Section 8 on suitable and unsuitable materials. See also the<br>information in "For non-emergency personnel".                                                                                                                                                                                                                                                                                |
| Environmental precautions      | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.                                                                                                                                                       |
| Methods and materials for co   | ntainment and cleaning up                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Small spill                    | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.                                                                                                                                           |

Version 9

## Section 6. Accidental release measures

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

## Section 7. Handling and storage

| Precautions for safe handling                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective measures                                                | Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general<br>occupational hygiene                          | Eating, drinking and smoking should be prohibited in areas where this material is<br>handled, stored and processed. Workers should wash hands and face before<br>eating, drinking and smoking. Remove contaminated clothing and protective<br>equipment before entering eating areas. See also Section 8 for additional<br>information on hygiene measures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Conditions for safe storage,<br>including any<br>incompatibilities | 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.                                                                                                                                                                                                                                                                                                                                                                                                   |

## Section 8. Exposure controls/personal protection

### Control parameters

**Occupational exposure limits** 

| Ingredient name                                    | Exposure limits                                                                                                                                        |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| dibutylbis(pentane-2,4-dionato-O,O')tin<br>ethanol | TLV (Philippines, 4/2016). [Tin (organic<br>compounds)]TLV: 0.1 mg/m³ 8 hours.TLV (Philippines, 4/2016).TLV: 1900 mg/m³ 8 hours.TLV: 1000 ppm 8 hours. |

## Section 8. Exposure controls/personal protection

| Recommended monitoring procedures   | :         | Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering<br>controls | :         | Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.                                                                                                                                                                                                                                               |
| Environmental exposure controls     | :         | Emissions from ventilation or work process equipment should be checked to ensure<br>they comply with the requirements of environmental protection legislation. In some<br>cases, fume scrubbers, filters or engineering modifications to the process<br>equipment will be necessary to reduce emissions to acceptable levels.                                                                                                                                                                                                                                                                                           |
| Individual protection measure       | <u>es</u> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hygiene measures                    | :         | Wash hands, forearms and face thoroughly after handling chemical products, before<br>eating, smoking and using the lavatory and at the end of the working period.<br>Appropriate techniques should be used to remove potentially contaminated clothing.<br>Contaminated work clothing should not be allowed out of the workplace. Wash<br>contaminated clothing before reusing. Ensure that eyewash stations and safety<br>showers are close to the workstation location.                                                                                                                                               |
| Eye/face protection                 | :         | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.                                                                                                                                                                              |
| Skin protection                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hand protection                     | :         | Chemical-resistant, impervious gloves complying with an approved standard should<br>be worn at all times when handling chemical products if a risk assessment indicates<br>this is necessary. Considering the parameters specified by the glove manufacturer,<br>check during use that the gloves are still retaining their protective properties. It<br>should be noted that the time to breakthrough for any glove material may be<br>different for different glove manufacturers. In the case of mixtures, consisting of<br>several substances, the protection time of the gloves cannot be accurately<br>estimated. |
| Gloves                              | 1         | nitrile neoprene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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 selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Respiratory protection              | :         | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.                                                                                                                                                                                                                                                                                                                                                |

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

| <u>Appearance</u>                                       |    |                                 |               |           |                                     |          |           |             |
|---------------------------------------------------------|----|---------------------------------|---------------|-----------|-------------------------------------|----------|-----------|-------------|
| Physical state                                          | ÷  | Liquid.                         |               |           |                                     |          |           |             |
| Color                                                   | ÷  | Colorless.                      |               |           |                                     |          |           |             |
| Odor                                                    | ÷  | Amine-like.                     |               |           |                                     |          |           |             |
| Odor threshold                                          | ÷  | Not available.                  |               |           |                                     |          |           |             |
| Melting point/freezing point                            |    | Not available.                  |               |           |                                     |          |           |             |
| Boiling point, initial boiling point, and boiling range | :  | >37.78°C (>100°F)               |               |           |                                     |          |           |             |
| Flammability                                            | :  | Not available.                  |               |           |                                     |          |           |             |
| Lower and upper explosive (flammable) limits            | 1  | Not available.                  |               |           |                                     |          |           |             |
| Flash point                                             | 1  | Closed cup: 47°C (1             | 16.6°F)       |           |                                     |          |           |             |
| Auto-ignition temperature                               | :  | Ingredient name                 |               | °C        | °F                                  |          | Method    |             |
|                                                         |    | dibutylbis(pentane-2,4-d<br>tin | lionato-O,O') | 400       | 752                                 |          | EU A.15   |             |
| Decomposition temperature                               | :  | Not available.                  |               |           |                                     |          |           |             |
| рН                                                      | :  | Not applicable.                 |               |           |                                     |          |           |             |
| Viscosity                                               | :  | Kinematic (40°C): >2            | 21 mm²/s      |           |                                     |          |           |             |
| Viscosity                                               | :  | 60 - 100 s (ISO 6mr             | n)            |           |                                     |          |           |             |
|                                                         |    | Media                           | Re            | sult      |                                     |          |           |             |
| Solubility(ies)                                         | •  | cold water                      | No            | t soluble | Э                                   |          |           |             |
| Partition coefficient: n-<br>octanol/water              | 1  | Not applicable.                 |               |           |                                     |          |           |             |
| Vapor pressure                                          | :  |                                 | Vapor         | r Press   | ure at 20°C                         | Va       | por press | ure at 50°C |
|                                                         |    | Ingredient name                 | mm Hg         | kPa       | Method                              | mm<br>Hg | kPa       | Method      |
|                                                         |    | ethanol                         | 42.95         | 5.7       |                                     |          |           |             |
| Relative density                                        | :  | 0.96                            | I             |           | <u> </u>                            |          | 1         | 1           |
| Bulk density (g/cm <sup>3</sup> )                       | :  | 0.963                           |               |           |                                     |          |           |             |
| Relative vapor density                                  | :  | Not available.                  |               |           |                                     |          |           |             |
| Particle characteristics                                |    |                                 |               |           |                                     |          |           |             |
| Median particle size                                    | :  | Not applicable.                 |               |           |                                     |          |           |             |
| Evaporation rate                                        | :  | Not available.                  |               |           |                                     |          |           |             |
| Section 10. Stabili                                     | ty | and reactivi                    | ity           |           |                                     |          |           |             |
| De a ativita                                            |    | Na an aiti ata tutut            | -             |           | · · · · · · · · · · · · · · · · · · |          | 1 4 1     |             |

| 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.            |

## Section 10. Stability and reactivity

| 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<br>products<br>Hazardous polymerization | <ul> <li>Depending on conditions, decomposition products may include the following<br/>materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides</li> <li>Under normal conditions of storage and use, hazardous polymerization will not<br/>occur.</li> </ul> |

## Section 11. Toxicological information

### Information on toxicological effects

### Acute toxicity

| Product/ingredient name      | Result                          | Species | Dose                     | Exposure |
|------------------------------|---------------------------------|---------|--------------------------|----------|
| 3-aminopropyltriethoxysilane | LC50 Inhalation Dusts and mists | Rat     | >7.35 mg/l               | 4 hours  |
|                              | LD50 Dermal                     | Rabbit  | 4 g/kg                   | -        |
|                              | LD50 Oral                       | Rat     | 1.57 g/kg                | -        |
| dibutylbis(pentane-          | LD50 Dermal                     | Rat     | >2000 mg/kg              | -        |
| 2,4-dionato-O,O')tin         |                                 |         |                          |          |
|                              | LD50 Oral                       | Rat     | 1864 mg/kg               | -        |
| ethanol                      | LC50 Inhalation Vapor           | Rat     | 124700 mg/m <sup>3</sup> | 4 hours  |
|                              | LD50 Dermal                     | Rat     | 17100 mg/kg              | -        |
|                              | LD50 Oral                       | Rat     | 7 g/kg                   | -        |

Conclusion/Summary

: There are no data available on the mixture itself.

### Irritation/Corrosion

### **Conclusion/Summary**

| S | ki | n |
|---|----|---|
|   |    |   |

: There are no data available on the mixture itself.

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

### **Sensitization**

| Product/ingredient name       | Route of exposure                                    | Species                                            | Result      |  |  |  |  |
|-------------------------------|------------------------------------------------------|----------------------------------------------------|-------------|--|--|--|--|
| 3-aminopropyltriethoxysilane  | skin                                                 | Guinea pig                                         | Sensitizing |  |  |  |  |
| Conclusion/Summary            |                                                      |                                                    |             |  |  |  |  |
| Skin                          | : There are no da                                    | ata available on the mixture itse                  | lf.         |  |  |  |  |
| Respiratory                   | : There are no da                                    | ata available on the mixture itse                  | lf.         |  |  |  |  |
| <u>Mutagenicity</u>           |                                                      |                                                    |             |  |  |  |  |
| Conclusion/Summary            | : There are no da                                    | There are no data available on the mixture itself. |             |  |  |  |  |
| Carcinogenicity               |                                                      |                                                    |             |  |  |  |  |
| Conclusion/Summary            | : There are no da                                    | There are no data available on the mixture itself. |             |  |  |  |  |
| Reproductive toxicity         |                                                      |                                                    |             |  |  |  |  |
| Conclusion/Summary            | : There are no da                                    | There are no data available on the mixture itself. |             |  |  |  |  |
| Teratogenicity                |                                                      |                                                    |             |  |  |  |  |
| Conclusion/Summary            | : There are no data available on the mixture itself. |                                                    |             |  |  |  |  |
| Specific target organ toxicit | <u>y (single exposur</u>                             | <u>e)</u>                                          |             |  |  |  |  |

Version 9

# Section 11. Toxicological information

| Name                                            | Category   | Route of exposure | Target organs |
|-------------------------------------------------|------------|-------------------|---------------|
| dibutylbis(pentane-2,4-dionato-O,O')tin         | Category 1 | -                 | -             |
| Specific target organ toxicity (repeated exposu | ire)       |                   |               |
| Name                                            | Category   | Route of exposure | Target organs |
| dibutylbis(pentane-2,4-dionato-O,O')tin         | Category 1 | -                 | immune system |

### **Aspiration hazard**

Not available.

| Information on the likely<br>routes of exposure | 1  | Not available.                                                                                                                                                                                            |
|-------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potential acute health effects                  |    |                                                                                                                                                                                                           |
| Eye contact                                     | 1  | Causes serious eye damage.                                                                                                                                                                                |
| Inhalation                                      | 1  | No known significant effects or critical hazards.                                                                                                                                                         |
| Skin contact                                    | :  | Causes severe burns. May be harmful in contact with skin. May cause damage to organs following a single exposure in contact with skin. Defatting to the skin. May cause an allergic skin reaction.        |
| Ingestion                                       | :  | Harmful if swallowed. Corrosive to the digestive tract. Causes burns. May cause damage to organs following a single exposure if swallowed.                                                                |
| Symptoms related to the phy                     | si | cal, 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>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 |
| 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 effec                     | ts | and also chronic effects from short and long term exposure                                                                                                                                                |
| Short term exposure                             |    |                                                                                                                                                                                                           |
| Potential immediate<br>effects                  | :  | Not available.                                                                                                                                                                                            |
|                                                 |    | Philippines Page: 9/12                                                                                                                                                                                    |

## Section 11. Toxicological information

| Potential delayed effects    | 1   | Not available.                                                                                                                                                                                                                                                              |
|------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long term exposure           |     |                                                                                                                                                                                                                                                                             |
| Potential immediate effects  | :   | Not available.                                                                                                                                                                                                                                                              |
| Potential delayed effects    | :   | Not available.                                                                                                                                                                                                                                                              |
| Potential chronic health eff | ect | <u>s</u>                                                                                                                                                                                                                                                                    |
| Not available.               |     |                                                                                                                                                                                                                                                                             |
| General                      | :   | May cause 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              | :   | No known significant effects or critical hazards.                                                                                                                                                                                                                           |
| Mutagenicity                 | :   | Suspected of causing genetic defects.                                                                                                                                                                                                                                       |
| Reproductive toxicity        | :   | May damage fertility or the unborn child.                                                                                                                                                                                                                                   |

### Numerical measures of toxicity

### Acute toxicity estimates

| Route  | ATE value     |
|--------|---------------|
| Oral   | 1607.18 mg/kg |
| Dermal | 3883.83 mg/kg |

#### Other information

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F). Avoid contact with skin and clothing.

## Section 12. Ecological information

| _ |            |   |             |
|---|------------|---|-------------|
|   | <b>AVI</b> |   | <b>t</b> \/ |
|   | UAI        |   | LV          |
| _ |            | - |             |

| Product/ingredient name      | Result                           | Species                 | Exposure |
|------------------------------|----------------------------------|-------------------------|----------|
| 3-aminopropyltriethoxysilane | Acute LC50 >934 mg/l             | Fish                    | 96 hours |
| ethanol                      | Acute EC50 7640 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |

### Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| ethanol                 | -                 | -          | Readily          |

### **Bioaccumulative potential**

| Product/ingredient name      | LogP <sub>ow</sub> | BCF | Potential |
|------------------------------|--------------------|-----|-----------|
| 3-aminopropyltriethoxysilane | 1.7                | 3.4 | low       |
| ethanol                      | -0.35              | -   | low       |

### Mobility in soil

### Section 12. Ecological information

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

## Section 13. Disposal considerations

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

## Section 14. Transport information

|                             |                                                                    | 1                                             | 1                                                                  |
|-----------------------------|--------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------|
|                             | UN                                                                 | IMDG                                          | ΙΑΤΑ                                                               |
| UN number                   | <b>UN3470</b>                                                      | <b>UN3470</b>                                 | <b>UN3470</b>                                                      |
| UN proper<br>shipping name  | PAINT, CORROSIVE,<br>FLAMMABLE                                     | PAINT, CORROSIVE,<br>FLAMMABLE                | PAINT, CORROSIVE,<br>FLAMMABLE                                     |
| Transport hazard class(es)  | 8 (3)                                                              | 8 (3)                                         | 8 (3)                                                              |
| Packing group               | <b>▼</b> II                                                        |                                               |                                                                    |
| Environmental<br>hazards    | Yes. The environmentally hazardous substance mark is not required. | Yes.                                          | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable.                                                    | (dibutylbis(pentane-<br>2,4-dionato-O,O')tin) | Not applicable.                                                    |

### Additional information

| UN   | : None identified.                                                                                         |
|------|------------------------------------------------------------------------------------------------------------|
| IMDG | : The marine pollutant mark is not required when transported in sizes of $\leq$ 5 L or $\leq$ 5 kg.        |
| IATA | : The environmentally hazardous substance mark may appear if required by other transportation regulations. |

Special precautions for user :Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

## Section 15. Regulatory information

International regulations

Montreal Protocol

Not listed.

### Stockholm Convention on Persistent Organic Pollutants Not listed.

## Section 16. Other information

| <u>History</u>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of issue/Date of revision | : 21 February 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Date of previous issue         | : 2/13/2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Version                        | : 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Prepared by                    | : EHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Key to abbreviations           | <ul> <li>ATE = Acute Toxicity Estimate<br/>BCF = Bioconcentration Factor<br/>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br/>IATA = International Air Transport Association<br/>IBC = Internediate Bulk Container<br/>IMDG = International Maritime Dangerous Goods<br/>LogPow = logarithm of the octanol/water partition coefficient<br/>MARPOL = International Convention for the Prevention of Pollution From Ships,<br/>1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br/>UN = United Nations</li> </ul> |

### Procedure used to derive the classification

| Classification                                                  | Justification         |
|-----------------------------------------------------------------|-----------------------|
| FLAMMABLE LIQUIDS - Category 3                                  | On basis of test data |
| ACUTE TOXICITY (oral) - Category 4                              | Calculation method    |
| ACUTE TOXICITY (dermal) - Category 5                            | Calculation method    |
| SKIN CORROSION/IRRITATION - Category 1B                         | Calculation method    |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1                 | Calculation method    |
| SKIN SENSITIZATION - Category 1                                 | Calculation method    |
| GERM CELL MUTAGENICITY - Category 2                             | Calculation method    |
| TOXIC TO REPRODUCTION - Category 1B                             | Calculation method    |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2   | Calculation method    |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method    |
| AQUATIC HAZARD (ACUTE) - Category 2                             | Calculation method    |
| AQUATIC HAZARD (LONG-TERM) - Category 2                         | Calculation method    |

**V** Indicates information that has changed from previously issued version.

### Notice to reader

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