SAFETY DATA SHEET

Date of issue/Date of revision: 13 March 2023
Version: 1

Section 1. Identification

Product code: 00467859
Product name: HI-TEMP 1027 GREY
Product type: Liquid.

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

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

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

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

Section 2. Hazards identification

Classification of the substance or mixture:
FLAMMABLE LIQUIDS - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements, including precautionary statements

Hazard pictograms:

Signal word: Warning
Hazard statements: Flammable liquid and vapor.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid release to the environment.

Response: Collect spillage.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Section 2. Hazards identification

Other hazards which do not result in classification:
- 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.
- EC number: Mixture.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>64742-94-5</td>
<td>10 - &lt;20</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>3 - &lt;5</td>
</tr>
<tr>
<td>dimethyl carbonate</td>
<td>616-38-6</td>
<td>3 - &lt;5</td>
</tr>
<tr>
<td>trizinc bis(orthophosphate)</td>
<td>7779-90-0</td>
<td>3 - &lt;5</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>1314-13-2</td>
<td>1 - &lt;3</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>1 - &lt;3</td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>0.3 - &lt;1</td>
</tr>
</tbody>
</table>

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: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.
Section 4. First aid measures

**Skin contact**: Adverse symptoms may include the following:
- irritation
- dryness
- cracking

**Ingestion**: No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**: Use dry chemical, CO₂, water spray (fog) or foam.

**Unsuitable extinguishing media**: Do not use water jet.

**Specific hazards arising from the chemical**: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials:
- carbon oxides
- phosphorus oxides
- halogenated compounds
- metal oxide/oxides
- 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 equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**
No action shall be taken involving any personal risk or without suitable training.
Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

**Methods and materials for containment and cleaning up**

**Small spill**
Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.
Section 7. Handling and storage

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any 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. 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

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| xylene          | Workplace Safety and Health Act (Singapore, 2/2006). [Xylene]  
PEL (short term): 651 mg/m³ 15 minutes.  
PEL (short term): 150 ppm 15 minutes.  
PEL (long term): 434 mg/m³ 8 hours.  
PEL (long term): 100 ppm 8 hours. |
| zinc oxide      | Workplace Safety and Health Act (Singapore, 2/2006).  
PEL (long term): 10 mg/m³ 8 hours. Form: Dust  
PEL (short term): 10 mg/m³ 15 minutes. Form: Fume  
PEL (long term): 5 mg/m³ 8 hours. Form: Fume |
| ethylbenzene    | Workplace Safety and Health Act (Singapore, 2/2006).  
PEL (short term): 543 mg/m³ 15 minutes.  
PEL (short term): 125 ppm 15 minutes.  
PEL (long term): 434 mg/m³ 8 hours.  
PEL (long term): 100 ppm 8 hours. |
| toluene         | Workplace Safety and Health Act (Singapore, 2/2006).  
PEL (long term): 188 mg/m³ 8 hours.  
PEL (long term): 50 ppm 8 hours. |

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.
## Section 8. Exposure controls/personal protection

| Appropriate engineering 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 they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

### Individual protection measures

#### Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection
Safety glasses with side shields.

#### Skin protection

##### Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Gloves
For prolonged or repeated handling, use the following type of gloves:

- Not recommended: nitrile rubber
- Recommended: Chloroprene, polyvinyl alcohol (PVA), Viton®

##### Body protection
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

##### Respiratory protection
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Odor** : Characteristic.

**pH** : Not applicable.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 23°C (73.4°F)

**Evaporation rate** : Highest known value: 3.22 (dimethyl carbonate) Weighted average: 1.84 compared with butyl acetate

**Flammability (solid, gas)** : liquid

**Vapor pressure** : Highest known value: 7.6 kPa (56.8 mm Hg) (at 20°C) (dimethyl carbonate). Weighted average: 1.86 kPa (13.95 mm Hg) (at 20°C)

**Vapor density** : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.44 (Air = 1)

**Relative density** : 1.91

**Solubility(ies)**

<table>
<thead>
<tr>
<th>Media</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>cold water</td>
<td>Not soluble</td>
</tr>
</tbody>
</table>

**Auto-ignition temperature** : Lowest known value: 220 to 250°C (428 to 482°F) (Solvent naphtha (petroleum), heavy arom.).

**Viscosity** : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

Section 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 phosphorus oxides halogenated compounds Formaldehyde. metal oxide/oxides
## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>&gt;5.2 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>xylene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1.7 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4.3 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>dimethyl carbonate</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>140000 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2.5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12.9 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>trizinc bis(orthophosphate)</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>&gt;5.7 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>&gt;5700 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>17.8 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>17.8 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3.5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>toluene</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>49 g/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>8.39 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5580 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

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

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

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

#### Sensitization

**Conclusion/Summary**
- **Skin**: There are no data available on the mixture itself.
- **Eyes**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

#### Mutagenicity

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

#### Carcinogenicity

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

#### Reproductive toxicity

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

#### Teratogenicity

**Conclusion/Summary**: There are no data available on the mixture itself.
Section 11. Toxicological information

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>Category 3</td>
<td>-</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>xylene</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract</td>
</tr>
<tr>
<td>dimethyl carbonate</td>
<td>Category 3</td>
<td>-</td>
<td>irritation</td>
</tr>
<tr>
<td>toluene</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
<td>-</td>
<td>hearing organs</td>
</tr>
<tr>
<td>toluene</td>
<td>Category 2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>xylene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>toluene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Defatting to the skin. May cause skin dryness and irritation.
- **Ingestion**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- **Eye contact**: No specific data.
- **Inhalation**: No specific data.
- **Skin contact**: Adverse symptoms may include the following:
  - irritation
  - dryness
  - cracking
- **Ingestion**: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- **Potential immediate effects**: Not available.
Section 11. Toxicological information

Potential delayed effects: Not available.

Long term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects

General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Reproductive toxicity: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>5895.01 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>183.19 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>22.85 mg/l</td>
</tr>
</tbody>
</table>

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

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>NOEL 0.48 mg/l Fresh water</td>
<td>Daphnia</td>
<td>21 days</td>
</tr>
<tr>
<td>dimethyl carbonate</td>
<td>Acute LC50 &gt;100 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>trizinc bis(orthophosphate)</td>
<td>Acute LC50 0.112 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Chronic NOEC 0.026 mg/l</td>
<td>Fish</td>
<td>30 days</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute EC50 0.17 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.481 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.017 mg/l Fresh water</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 1.8 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1 mg/l Fresh water</td>
<td>Daphnia - Ceriodaphnia dubia</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.
Section 12. Ecological information

**Persistence/degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>79 % - Readily - 10 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>toluene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy arom.</td>
<td>2.8 to 6.5</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>xylene</td>
<td>3.12</td>
<td>7.4 to 18.5</td>
<td>low</td>
</tr>
<tr>
<td>dimethyl carbonate</td>
<td>0.354</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>3.6</td>
<td>79.43</td>
<td>low</td>
</tr>
<tr>
<td>toluene</td>
<td>2.73</td>
<td>8.32</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

- **Soil/water partition coefficient (K<sub>oc</sub>)**: 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

<table>
<thead>
<tr>
<th></th>
<th>UN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
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<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td>(Solvent naphtha (petroleum), heavy aromatic, trizinc bis (orthophosphate))</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**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 to IMO instruments**: Not applicable.

Section 15. Regulatory information

**Singapore - hazardous chemicals under government control**

None.

**International regulations**

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.
Section 16. Other information

History

- Date of issue/Date of revision: 13 March 2023
- Date of previous issue: No previous validation
- Version: 1
- Prepared by: EHS

Key to abbreviations:

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

 Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.