SAFETY DATA SHEET

Product code: 00333521
Product name: AMERLOCK SEALER HRD
Product type: Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Product code: AMERLOCK SEALER HRD
Product type: Liquid.

Supplier's details
PPG Coatings (Kunshan) Co., Ltd
53 Jinyang Road, Lujia Town,
215331 Kunshan City, Jiangsu Province, P.R. China
Tel: 86 512 57678859  Fax: 86 512 57678857

Emergency telephone number (with hours of operation)
00 86 532 83889090

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview
Liquid.
Characteristic.
Fatal if inhaled.
Toxic in contact with skin.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Immediately call a POISON CENTER or physician. IF ON SKIN: Call a POISON CENTER or physician if you feel unwell. IF skin irritation or rash occurs: Get medical attention. IF IN EYES: Immediately call a POISON CENTER or physician.
Section 2. Hazards identification

See Section 12 for environmental precautions.

Classification of the substance or mixture:
- ACUTE TOXICITY (oral) - Category 4
- ACUTE TOXICITY (dermal) - Category 3
- ACUTE TOXICITY (inhalation) - Category 2
- SKIN CORROSION/IRRITATION - Category 1C
- SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
- SKIN SENSITIZATION - Category 1
- CARCINOGENICITY - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
- AQUATIC HAZARD (ACUTE) - Category 2
- AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms:

- Danger

Signal word: Danger

Hazard statements:
- Fatal if inhaled.
- Toxic in contact with skin.
- Harmful if swallowed.
- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- Suspected of causing cancer.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.
- Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:
- Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for...

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 29.2% (Oral), 29.2% (Dermal), 69.8% (Inhalation)

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 79%
Section 2. Hazards identification

several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage
: Store locked up.

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

Physical and chemical hazards
: No known significant effects or critical hazards.

Health hazards
: Fatal if inhaled. Toxic in contact with skin. Harmful if swallowed. Causes severe skin burns and eye damage. Prolonged or repeated contact may dry skin and cause irritation. Causes digestive tract burns. May cause an allergic skin reaction. Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F).

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
: Adverse symptoms may include the following:
  - pain
  - watering
  - redness

Inhalation
: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing

Skin contact
: Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - dryness
  - cracking
  - blistering may occur

Ingestion
: Adverse symptoms may include the following:
  - stomach pains

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

Short term exposure
  - Potential immediate effects
    : Not available.
  - Potential delayed effects
    : Not available.

Long term exposure
  - Potential immediate effects
    : Not available.
  - Potential delayed effects
    : Not available.

Environmental hazards
: Toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification
: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F).
Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>furfuryl alcohol</td>
<td>10 - &lt;25</td>
<td>98-00-0</td>
</tr>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl]), α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-</td>
<td>10 - &lt;25</td>
<td>9046-10-0 (n = 2-6)</td>
</tr>
<tr>
<td>Formaldehyde, polymer with 1,3-dimethylbenzene</td>
<td>10 - &lt;25</td>
<td>26139-75-3</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>1 - &lt;10</td>
<td>100-51-6</td>
</tr>
<tr>
<td>Mixture of Cycloaliphatic Amines</td>
<td>1 - &lt;10</td>
<td>SUB100744</td>
</tr>
<tr>
<td>Tertiary Amine</td>
<td>1 - &lt;10</td>
<td>SUB100742</td>
</tr>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>1 - &lt;10</td>
<td>112-24-3</td>
</tr>
<tr>
<td>4-nonylphenol, branched</td>
<td>1 - &lt;10</td>
<td>84852-15-3</td>
</tr>
<tr>
<td>Phenol, 2-nonyl-, branched</td>
<td>0.1 - &lt;1</td>
<td>91672-41-2</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 : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

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

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

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

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Fatal if inhaled. May cause respiratory irritation.

Skin contact : Causes severe burns. Harmful 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.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

- pain
- watering
- redness
Section 4. First aid measures

**Inhalation**
- Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing

**Skin contact**
- Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - dryness
  - cracking
  - blistering may occur

**Ingestion**
- Adverse symptoms may include the following:
  - stomach pains

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

**Notes to physician**
- In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
- No specific treatment.

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

**Section 5. Fire-fighting measures**

**Extinguishing media**
- Use an extinguishing agent suitable for the surrounding fire.

**Suitable extinguishing media**
- None known.

**Unsuitable extinguishing media**

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

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - carbon oxides
  - nitrogen oxides
  - 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.

**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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

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. 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. 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: Put on appropriate personal protective equipment (see Section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**

Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. 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. 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

**Ingredient name**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PC-STEL: 60 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>PC-TWA: 40 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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 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.

**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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eye wash stations and safety showers are close to the workstation location.

**Eye protection**

Chemical splash goggles and face shield.

**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**

Nitrile neoprene

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**Control parameters**

**Occupational exposure limits**

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**Exposure limits**

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Section 8. Exposure controls/personal protection

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.

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.
Boiling point: >37.78°C (>100°F)
Flash point: Closed cup: 100°C (212°F)
Material supports combustion: Yes.
Relative density: 1.02
Solubility: Insoluble in the following materials: cold water.
Viscosity: Kinematic (40°C): >0.21 cm²/s

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 nitrogen oxides Formaldehyde.
### 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>Furfuryl alcohol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>934 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>233 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3825 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>0.132 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Poly[(oxy(methyl-1,2-ethanediyl)],α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)]-</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2980 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2885 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Dusts</td>
<td>Rat</td>
<td>&gt;4178 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>and mists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>1.23 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Mixture of Cycloaliphatic Amines</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;1 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Tertiary Amine</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1.242 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>805 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>4-nonylphenol, branched</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2.14 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>0.58 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

##### Irritation/Corrosion

Not available.

##### Sensitization

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>skin</td>
<td>Guinea pig</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>

##### Mutagenicity

Not available.

##### Carcinogenicity

Not available.

##### Reproductive toxicity

Not available.

##### Teratogenicity

Not available.

##### 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>Furfuryl alcohol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Formaldehyde, polymer with 1,3-dimethylbenzene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

##### Specific target organ toxicity (repeated exposure)
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>furfuryl alcohol</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>ASPIRATION HAZARD - Category 2</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Fatal if inhaled. May cause respiratory irritation.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed. Corrosive to the digestive tract. Causes burns.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>pain, watering, redness</td>
</tr>
<tr>
<td>Inhalation</td>
<td>respiratory tract irritation, coughing</td>
</tr>
<tr>
<td>Skin contact</td>
<td>pain or irritation, redness, dryness, cracking, blistering may occur</td>
</tr>
<tr>
<td>Ingestion</td>
<td>stomach pains</td>
</tr>
</tbody>
</table>

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

Short term exposure

<table>
<thead>
<tr>
<th>Effect</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential immediate effects</td>
<td></td>
</tr>
<tr>
<td>Potential delayed effects</td>
<td></td>
</tr>
</tbody>
</table>

Long term exposure

<table>
<thead>
<tr>
<th>Effect</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential immediate effects</td>
<td></td>
</tr>
<tr>
<td>Potential delayed effects</td>
<td></td>
</tr>
</tbody>
</table>

Potential chronic health effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td></td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: 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>Oral</td>
<td>358.4 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>950.1 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>1.31 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>5.746 mg/l</td>
</tr>
</tbody>
</table>

Other information:

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 3,6-diazaoctanethylenediamin. May produce an allergic reaction.

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>Poly(oxy(methyl-1,2-ethanediyl)), α-(2-aminomethyl(ethyl))-ω-(2-aminomethyleneoxy)-Phenol, 2-nonyl-, branched</td>
<td>EC50 15 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.017 mg/l</td>
<td>Fish - Pleuronectes americanus</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence/degradability**
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-benzyl alcohol</td>
<td>-</td>
<td>-</td>
<td>Not 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>furfuryl alcohol</td>
<td>0.28</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>1.1</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>3, 6-diazaoctanethylenediamin</td>
<td>-1.66 to -1.4</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>4-nonylphenol, branched</td>
<td>-</td>
<td>251.19</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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>China</th>
<th>UN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN3066</td>
<td>UN3066</td>
<td>UN3066</td>
<td>UN3066</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
<td>PAINT</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>
Section 14. Transport information

<table>
<thead>
<tr>
<th>Environmental hazards</th>
<th>Marine pollutant substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes. The environmentally hazardous substance mark is not required. Not applicable.</td>
<td>(4-nonylphenol, branched)</td>
</tr>
<tr>
<td>Yes. The environmentally hazardous substance mark is not required. Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required. Not applicable.</td>
</tr>
</tbody>
</table>

Additional information

- CN: None identified.
- UN: None identified.
- IMDG: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤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.

Section 15. Regulatory information

China inventory (IECSC): All components are listed or exempted.

References:
- Production Safety Law of the People's Republic of China
- Code of Occupational Disease Prevention of the People's Republic of China
- Environmental Protection Law of the People's Republic of China
- Fire Control Law of the People's Republic of China
- Regulations on the Control over Safety of Dangerous Chemicals
- Occupational exposure limits for hazardous agents in the workplace chemical hazardous agents (GBZ2.1)
- General rule for classification and hazard communication of chemicals (GB13690)
- Safety data sheet for chemical products - Content and order of sections (GB/T16483)
- Guidance on the compilation of safety data sheet for chemical products (GB/T17519)
- General rule for preparation of precautionary label for chemicals (GB15258)
- Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB30000.2-29)

Section 16. Other information

History

- Date of issue/Date of revision: 20 December 2018
- Date of previous issue: 2/4/2018
- Version: 6

EHS
Section 16. Other information

Key to abbreviations:

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations

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.