

# SAFETY DATA SHEET



PPG SSC Co.,Ltd.

Date of issue 12/31/2025 (month/day/year)

Version 3.01

## Section 1. Chemical product and company identification

A. Product name : SIGMAPRIME 930 LT HARDENER  
Product code : 000010026178

### Other means of identification

30013844

### B. Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.  
Use of the substance/mixture : Coating.  
Uses advised against : Product is not intended, labelled or packaged for consumer use.

C. Supplier's or Importer's information : PPG SSC  
(44714)  
19, Yeocheon-ro 217beon-gil, Nam-gu,  
Ulsan, Korea  
Tel: +82-52-210-8222

Email Address Korea.MSDS@PPG.COM

Emergency telephone number: +82-52-210-8331

## Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3  
CORROSIVE TO METALS - Category 1  
ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION - Category 1  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITISATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2  
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  
This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

### B. GHS label elements, including precautionary statements

Symbol :

## Section 2. Hazards identification

|  |   |
|--|---|
| Signal word  | : Danger  |
| Hazard statements                                      | : H226 - Flammable liquid and vapour.<br>H290 - May be corrosive to metals.<br>H302 + H312 - Harmful if swallowed or in contact with skin.<br>H314 - Causes severe skin burns and eye damage.<br>H317 - May cause an allergic skin reaction.<br>H318 - Causes serious eye damage.<br>H373 - May cause damage to organs through prolonged or repeated exposure.<br>(central nervous system (CNS), kidneys, liver)<br>H400 - Very toxic to aquatic life.<br>H411 - Toxic to aquatic life with long lasting effects.   |
| Precautionary statements                               |   |
| Prevention   | : P280 - Wear protective gloves, protective clothing and eye or face protection.<br>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P241 - Use explosion-proof electrical, ventilating or lighting equipment.<br>P241 - Use explosion-proof electrical, ventilating or lighting equipment.<br>P242 - Use non-sparking tools.<br>P243 - Take action to prevent static discharges.<br>P240 - Ground and bond container and receiving equipment.<br>P234 - Keep only in original packaging.<br>P273 - Avoid release to the environment.<br>P260 - Do not breathe vapour.<br>P270 - Do not eat, drink or smoke when using this product.<br>P264 - Wash thoroughly after handling.  |
| Response   | : P391 - Collect spillage.<br>P390 - Absorb spillage to prevent material damage.<br>P370 + P378 - In case of fire: Never use water to extinguish.<br>P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.<br>P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.<br>P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor.<br>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.<br>P363 - Wash contaminated clothing before reuse.<br>P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>Immediately call a POISON CENTER or doctor.<br>P321 - Specific treatment (see the label). |
| Storage  | : P403 + P235 - Store in a well-ventilated place. Keep cool.  |
| Disposal   | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.  |
| C. Other hazards which do not result in classification | : 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

### CAS number/other identifiers

**CAS number** : Not applicable.

| Chemical name   | Common name   | Identifiers   | %                   |
|---|---|---|---------------------|
| 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated | 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated | CAS: 1173092-74-4   | 20 - <30            |
| POLYOXYPROPYLENE POLYAMINE  | POLYOXY PROPYLENE DIAMINE   | EC: 630-554-4<br>CAS: 39423-51-3<br>EC: 500-105-6<br>CAS: 445498-00-0 | 10 - <20            |
| Formaldehyde polymer with N,N-dimethyl-1,3-propanediamine and phenol n-Butyl alcohol  | Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol<br>1-BUTANOL  | CAS: 71-36-3<br>EC: 200-751-6<br>CAS: 8007-24-7                       | 10 - <20<br>5 - <10 |
| Cashew, nutshell liq.; Oil of cashew nutshell -   | CASHEW NUTSHELL LIQUID  | EC: 700-991-6<br>CAS: 90-72-2<br>EC: 202-013-9<br>CAS: 68410-23-1     | 5 - <10             |
| 2,4,6-tris[(dimethylamino)methyl]phenol   | 2,4,6-tris(dimethylaminomethyl)phenol   | EC: 700-991-6<br>CAS: 90-72-2<br>EC: 202-013-9<br>CAS: 68410-23-1     | 5 - <10             |
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine  | POLYAMIDE RESIN   | CAS: 68410-23-1   | 1 - <5              |
| Xylene  | XYLEMES   | CAS: 1330-20-7<br>EC: 215-535-7                                       | 1 - <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.

## Section 4. First aid measures

- A. 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.
- B. Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- C. 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.
- D. Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- E. 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.

## Section 4. First aid measures

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

See toxicological information (Section 11)

## Section 5. Firefighting measures

### A. 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.

### B. Specific hazards arising from the chemical

Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life. 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  
halogenated compounds  
Formaldehyde.

### C. Special equipment for fire-fighting

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Fire-fighting procedures** : 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.

## Section 6. Accidental release measures

### A. Personal precautions, protective equipment and emergency procedures

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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

### B. Environmental precautions

Avoid dispersal of spilt 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.

### C. Methods and material for containment and cleaning up

## Section 6. Accidental release measures

### Small spill

- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. 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. Absorb spillage to prevent material damage. Approach the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### A. Precautions for safe handling

- 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. Do not get in eyes or on skin or clothing. Do not breathe vapour 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. Absorb spillage to prevent material damage.

Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

### B. 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. Store in corrosive resistant container with a resistant inner liner. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep away from metals. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### A. Occupational exposure limits

| Ingredient name | Exposure limits  |
|-----------------|--|
| n-Butyl alcohol | ISHA Article 42 (Republic of Korea, 1/2020)<br>TWA 8 hours: 20 ppm.  |
| Xylene          | ISHA Article 42 (Republic of Korea, 1/2020) [Xylene]<br>STEL 15 minutes: 150 ppm.<br>TWA 8 hours: 100 ppm. |

### 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.

### B. 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, vapour 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.

### C. Personal protective equipment

#### 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.

#### Eye protection

- : Chemical splash goggles and face shield.

#### 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

#### 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.

#### 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 eyewash stations and safety showers are close to the workstation location.

## Section 9. Physical and chemical properties

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

### A. Appearance

Physical state : Liquid.  
 Colour : Various  
 B. Odour : Characteristic.  
 C. Odour threshold : Not available.  
 D. pH : Not applicable.  
 E. Melting/freezing point : Not available.  
 F. Boiling point/boiling range : >37.78°C (>100°F)

G. Flash point : Closed cup: 58°C (136.4°F)

H. Evaporation rate : Not available.

I. Flammability (solid, gas) : Not available.

J. Lower and upper explosive (flammable) limits : Not available.

| K. Vapour pressure | Ingredient name | Vapour Pressure at 20°C |     |                | Vapour pressure at 50°C |     |        |
|--------------------|-----------------|-------------------------|-----|----------------|-------------------------|-----|--------|
|                    |                 | mm Hg                   | kPa | Method         | mm Hg                   | kPa | Method |
|                    | butan-1-ol      | <7.50064                | <1  | DIN EN 13016-2 |                         |     |        |

### L. Solubility(ies)

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |

### M. Solubility in water

: Not available.

### N. Vapour density

: Not available.

### O. Relative density

: 0.99

### P. Partition coefficient: n-octanol/water

: Not applicable.

### Q. Auto-ignition temperature

:

| Ingredient name  | °C  | °F  | Method  |
|--|-----|-----|---------|
| Propylidynetrimethanol, propoxylated, reaction products with ammonia | 320 | 608 | EU A.15 |

### R. Decomposition temperature

: Not available.

### S. Viscosity

: Dynamic (room temperature): Not available.  
 Kinematic (room temperature): Not available.  
 Kinematic (40°C (104°F)): >21 mm<sup>2</sup>/s (>21 cSt)

### T. Flow time (ISO 2431)

: Not available.

### U. Molecular weight

: Not applicable.

## Section 10. Stability and reactivity

**A. Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**B. Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.

**C. Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

**D. Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds Formaldehyde.

## Section 11. Toxicological information

**A. Information on likely routes of exposure** : Not available.

### Potential acute health effects

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : Harmful if swallowed.

**Skin contact** : Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.

**Eye contact** : Causes serious eye damage.

### Over-exposure signs/symptoms

**Inhalation** : No specific data.

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

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

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

### B. Health hazards

#### Acute toxicity

| Product/ingredient name  | Result                 | Species | Dose                    | Exposure |
|--|------------------------|---------|-------------------------|----------|
| 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated POLYOXYPROPYLENE POLYAMINE | LD50 Oral              | Rat     | 500 mg/kg               | -        |
| n-Butyl alcohol  | LD50 Dermal            | Rabbit  | 0.4 g/kg                | -        |
|  | LD50 Oral              | Rat     | 0.22 g/kg               | -        |
|  | LC50 Inhalation Vapour | Rat     | 24000 mg/m <sup>3</sup> | 4 hours  |

## Section 11. Toxicological information

|   |  |  |   |                            |
|---|--|--|---|----------------------------|
| 2,4,6-tris[(dimethylamino)methyl]phenol | LD50 Dermal<br>LD50 Oral<br>LD50 Dermal<br>LD50 Oral<br>LD50 Dermal<br>LD50 Oral | Rabbit<br>Rat<br>Rat<br>Rat<br>Rabbit<br>Rat | 3400 mg/kg<br>790 mg/kg<br>1280 mg/kg<br>1200 mg/kg<br>1.7 g/kg<br>4.3 g/kg | -<br>-<br>-<br>-<br>-<br>- |
| Xylene                                  |  |  |   |                            |

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

### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure        | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| n-Butyl alcohol         | Eyes - Cornea opacity    | Rabbit  | 4     | -               | -           |
| Xylene                  | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 mg | -           |

### 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.

### Sensitisation

| Product/ingredient name  | Route of exposure | Species | Result      |
|--|-------------------|---------|-------------|
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine | skin              | Mouse   | Sensitising |

### Conclusion/Summary

**Skin** : 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.

### Specific target organ toxicity (single exposure)

| Name  | Classification                         | Route of exposure | Target organs  |
|---|--|-------------------|--|
| n-Butyl alcohol<br>C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine<br>Xylene | Category 3<br>Category 3<br>Category 3 | -<br>-<br>-       | Narcotic effects<br>Respiratory tract irritation<br>Narcotic effects |

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

| Name   | Classification           | Route of exposure | Target organs                                |
|--|--------------------------|-------------------|--|
| Cashew, nutshell liq.; Oil of cashew nutshell - Xylene | Category 2<br>Category 1 | -<br>-            | central nervous system (CNS), kidneys, liver |

### Aspiration hazard

| Name            | Result                         |
|-----------------|--------------------------------|
| n-Butyl alcohol | ASPIRATION HAZARD - Category 2 |

### Potential chronic health effects

**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** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Additional information

Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/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. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

| Chemical name   | Identifiers                            | GHS Classification   |
|---|--|--|
| 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated | CAS: 1173092-74-4<br><br>EC: 630-554-4 | CORROSIVE TO METALS - Category 1<br><br>ACUTE TOXICITY (oral) - Category 4<br>SKIN CORROSION - Category 1C<br>SERIOUS EYE DAMAGE - Category 1<br>SKIN SENSITISATION - Category 1B<br>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| POLYOXYPROPYLENE POLYAMINE  | CAS: 39423-51-3<br>EC: 500-105-6       | CORROSIVE TO METALS - Category 1<br>ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>SKIN CORROSION - Category 1<br>SERIOUS EYE DAMAGE - Category 1   |

## Section 11. Toxicological information

|  |                                 |   |
|--|---------------------------------|---|
| Formaldehyde polymer with N,N-dimethyl-1,3-propanediamine and phenol           | CAS: 445498-00-0                | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2<br>ACUTE TOXICITY (oral) - Category 4   |
| n-Butyl alcohol  | CAS: 71-36-3<br>EC: 200-751-6   | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1<br>FLAMMABLE LIQUIDS - Category 3<br>ACUTE TOXICITY (oral) - Category 4<br>SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3<br>ASPIRATION HAZARD - Category 2<br>SKIN IRRITATION - Category 2   |
| Cashew, nutshell liq.; Oil of cashew nutshell -                                | CAS: 8007-24-7<br>EC: 700-991-6 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2<br>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1<br>CORROSIVE TO METALS - Category 1<br>ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>SKIN CORROSION - Category 1<br>SERIOUS EYE DAMAGE - Category 1<br>SKIN IRRITATION - Category 2   |
| 2,4,6-tris[(dimethylamino)methyl]phenol  | CAS: 90-72-2<br>EC: 202-013-9   | EYE IRRITATION - Category 2A<br>SKIN SENSITISATION - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2<br>FLAMMABLE LIQUIDS - Category 3<br>ACUTE TOXICITY (dermal) - Category 4<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 |
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine | CAS: 68410-23-1                 |   |
| Xylene   | CAS: 1330-20-7<br>EC: 215-535-7 |   |

## Section 12. Ecological information

### A. Ecotoxicity

## Section 12. Ecological information

| Product/ingredient name   | Result                     | Species | Exposure |
|---|----------------------------|---------|----------|
| 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated | Acute EC50 0.56 mg/l       | Algae   | 72 hours |
| n-Butyl alcohol   | Acute EC50 11.487 mg/l     | Daphnia | 48 hours |
| 2,4,6-tris[(dimethylamino) methyl]phenol  | Acute LC50 282.69 mg/l     | Fish    | 96 hours |
|   | Chronic NOEC 0.26 mg/l     | Algae   | 72 hours |
|   | Acute LC50 1376 mg/l       | Fish    | 96 hours |
|   | Acute LC50 >100 mg/l       | Daphnia | 48 hours |
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine  | Acute LC50 >100 mg/l       | Fish    | 96 hours |
|   | EC50 4.11 mg/l Fresh water | Algae   | 72 hours |

### B. Persistence and degradability

| Product/ingredient name  | Test   | Result                      | Dose | Inoculum |
|--|--|-----------------------------|------|----------|
| 2,4,6-tris[(dimethylamino) methyl]phenol                                       | OECD Ready Biodegradability - Closed Bottle Test | 4 % - Not readily - 28 days | -    | -        |
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine | -  | 15 % - 28 days              | -    | -        |

| Product/ingredient name  | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| 2,4,6-tris[(dimethylamino) methyl]phenol                                       | -                 | -          | Not readily      |
| C18-unsaturated fatty acid, dimer, reaction product with polyethylenepolyamine | -                 | -          | Not readily      |
| Xylene   | -                 | -          | Readily          |

### C. Bioaccumulative potential

| Product/ingredient name   | LogP <sub>ow</sub> | BCF | Potential |
|---|--------------------|-----|-----------|
| 2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated | 2.2                | -   | Low       |
| POLYOXYPROPYLENE  | -1.13              | -   | Low       |
| POLYAMINE   | 1                  | -   | Low       |
| n-Butyl alcohol   |                    |     |           |

## Section 12. Ecological information

|  |                        |                       |                    |
|--|------------------------|-----------------------|--------------------|
| Cashew, nutshell liq.; Oil of cashew nutshell -<br>2,4,6-tris[(dimethylamino)methyl]phenol<br>Xylene | >4.78<br>0.219<br>3.12 | -<br>-<br>7.4 to 18.5 | High<br>Low<br>Low |
|--|------------------------|-----------------------|--------------------|

### D. Mobility in soil

Soil/water partition coefficient : Not available.

### E. Other adverse effects

: No known significant effects or critical hazards.

## Section 13. Disposal considerations

### A. Disposal methods

: The generation of waste should be avoided or minimised 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.

### B. Disposal precautions

: 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                | UN   | IMDG  | IATA   |
|--------------------------------|--|---|--|
| A. UN number                   | UN3469   | UN3469  | UN3469   |
| B. UN proper shipping name     | PAINT, FLAMMABLE, CORROSIVE  | PAINT, FLAMMABLE, CORROSIVE   | PAINT, FLAMMABLE, CORROSIVE  |
| C. Transport hazard class(es)  | 3 (8)  | 3 (8)   | 3 (8)  |
| D. Packing group               | III  | III   | III  |
| E. Environmental hazards       | Yes. The environmentally hazardous substance mark is not required. | Yes.  | Yes. The environmentally hazardous substance mark is not required. |
| F. Marine pollutant substances | Not applicable.  | (2-Propenenitrile reaction products with ethylenediamine, hydrogenated, reaction products with benzaldehyde, diethylenetriamine and triethylenetetramine, hydrogenated) | Not applicable.  |

## Section 14. Transport information

### 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.

### F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

**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

### A. Regulation according to ISHA

**ISHA article 117 (Harmful substances prohibited from manufacture)** : None of the components are listed.

**ISHA article 118 (Harmful substances requiring permission)** : None of the components are listed.

**Article 2 of Youth Protection Act on Substances Hazardous to Youth** : It is not allowed to sell to persons under the age of 19.

### Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

n-Butyl alcohol  
Xylene

**ISHA Enforcement Regs (Annex 19 (Exposure standards established for harmful factors))** : None of the components are listed.

**ISHA Enforcement Regs (Annex 11-5 (Harmful factors subject to Work Environment Measurement))** : The following components are listed: n-butanol, xylene

**ISHA Enforcement Regs (Annex 22 (Harmful Factors Subject to Special Health Check-up))** : The following components are listed: n-Butanol, Xylene

## Section 15. Regulatory information

**Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)** : The following components are listed: n-butanol, xylene

**B. Regulation according to Chemicals Control Act**

**Article 11 (TRI)** : The following components are listed: Xylene including o-,m-,p- isomer, Ethylbenzene

**Article 18 Prohibited (K-Reach Article 27)** : None of the components are listed.

**Article 19 Subject to authorization (K-Reach Article 25)** : None of the components are listed.

**Article 20 Restricted (K-Reach Article 27)** : None of the components are listed.

**Article 20 Toxic Chemicals (K-Reach Article 20)** : Not applicable

**Korea inventory** : All components are listed or exempted.

**Article 39 (Accident Precaution Chemicals)** : None of the components are listed.

**C. Dangerous Materials Safety Management Act** : **Class:** Class 4 - Flammable Liquid  
**Item:** 4. Class 2 petroleums - Water-insoluble liquid  
**Threshold:** 1000 L  
**Danger category:** III  
**Signal word:** Contact with sources of ignition prohibited

**D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**E. Regulation according to other foreign laws**

**Safety, health and environmental regulations specific for the product** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

## Section 16. Other information

**A. References** : Korean Ministry of Environment; Chemical Control Act  
 Korean Ministry of Labor; Industrial Safety and Health Act  
 NIER Notice  
 Registry of Toxic Effects of Chemical Substances (RTECS)  
 U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System.

**B. First issue date** : 9/23/2025

**C. Date of issue/Date of revision** : 12/31/2025

**D. Version** : 3.01

**Prepared by** : EHS

**E. Other**

► Indicates information that has changed from previously issued version.

## Section 16. Other information

### Disclaimer

*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.*