

# SAFETY DATA SHEET



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Version 1.12

## Section 1. Chemical identification and supplier information

**Product code** : 000010025365  
**Product name** : PITT-CHAR NX BASE WHITE  
**CAS number** : Mixture  
**EC number** : Mixture.  
**Other means of identification**  
00424804; 30014719 ; 30014720 ; 30014732 ; 30088024 ; 5P656-C3000/22.9K  
**Product type** : Liquid.

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

**Product use** : Coating.  
Professional applications, Used by spraying.  
**Uses advised against** : Product is not intended, labelled or packaged for consumer use.  
**Supplier's details** : PPG Yungchi Coatings Co. Ltd  
No. 176, Road 6, Ho Nai IZ, Phuoc Tan Ward,  
Dong Nai City, Vietnam  
Tel : +84 61 3936121/22  
**Emergency telephone number (with hours of operation)** : CHEMTREC +(84)-444581938 (CCN 17704)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 5  
ACUTE TOXICITY (dermal) - Category 5  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - Category 2  
AQUATIC TOXICITY (ACUTE) - Category 1  
AQUATIC TOXICITY (CHRONIC) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 2.6%  
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 11.1%  
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 11.9%

### GHS label elements

## Section 2. Hazards identification

### Hazard pictograms



### Signal word

: Warning

### Hazard statements

: May be harmful if swallowed or in contact with skin.  
 Causes skin irritation.  
 May cause an allergic skin reaction.  
 Causes serious eye irritation.  
 Suspected of causing cancer.  
 Suspected of damaging fertility or the unborn child.  
 Very toxic to aquatic life.  
 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, protective clothing and eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: Collect spillage. IF exposed or concerned: Get medical advice or attention. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

#### Storage

: Store locked up.

#### Disposal

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

### Routes of entry

: Not available.

### Other hazards which do not result in classification

: None known.

## Section 3. Composition/information on ingredients

### Substance/mixture

: Mixture

### CAS number/other identifiers

#### CAS number

: Mixture

#### EC number

: Mixture.

| Ingredient name                                                                        | CAS number  | Chemical formula                                                                                       | %         |
|----------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------|-----------|
| hexaboron dizinc undecaoxide                                                           | 12767-90-7  | B <sub>6</sub> O <sub>11</sub> Zn <sub>2</sub>                                                         | ≥10 - ≤25 |
| Borate(5-), bis[μ-oxotetraoxodiborate(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)- | 12046-04-7  | -                                                                                                      | ≥10 - ≤25 |
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin                           | 25068-38-6  | (C <sub>15</sub> -H <sub>16</sub> -O <sub>2</sub> . C <sub>3</sub> -H <sub>5</sub> -Cl-O) <sub>x</sub> | ≥10 - ≤25 |
| tris(2-chloro-1-methylethyl) phosphate                                                 | 13674-84-5  | C <sub>9</sub> H <sub>18</sub> Cl <sub>3</sub> O <sub>4</sub> P                                        | ≤10       |
| Polyphosphoric acids, ammonium salts                                                   | 68333-79-9  | -                                                                                                      | ≤10       |
| triphenyl phosphate                                                                    | 115-86-6    | C <sub>18</sub> H <sub>15</sub> O <sub>4</sub> P                                                       | ≤10       |
| Synthetic fibers, alk. earth silicate                                                  | 436083-99-7 | -                                                                                                      | ≤3        |
| Epoxy resin (MW ≤ 700)                                                                 | 25068-38-6  | (C <sub>15</sub> -H <sub>16</sub> -O <sub>2</sub> .                                                    | ≤3        |

## Section 3. Composition/information on ingredients

|                                                                                              |                                       |                                    |                |
|----------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------|----------------|
| Cashew, nutshell liq.<br>2,2-bis(acryloyloxymethyl)butyl acrylate<br>glass, oxide, chemicals | 8007-24-7<br>15625-89-5<br>65997-17-3 | C3-H5-Cl-O)x<br>-<br>C15H20O6<br>- | <3<br>≤3<br>≤1 |
|----------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------|----------------|

There are no 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.

SUB codes represent substances without registered CAS Numbers.

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

## 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.  
In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.
- 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 irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

## Section 4. First aid measures

### 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. 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  
phosphorus oxides  
halogenated compounds  
metal oxide/oxides

**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. Avoid breathing vapor. 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.

## Section 6. Accidental release measures

### 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

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

- 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 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

### Control parameters

#### Occupational exposure limits

Section 8. Exposure controls/personal protection

| Ingredient name                                                                        | Exposure limits                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hexaboron dizinc undecaoxide                                                           | <b>ACGIH TLV (United States, 1/2013)</b><br>TWA: 3 mg/m³ (Dusts and mists). Form: Respirable fraction.<br>TWA: 10 mg/m³ (Dusts and mists). Form: Inhalable fraction.                                                            |
| Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)- | <b>ACGIH TLV (United States)</b><br>TWA: 10 mg/m³. Form: inhalable dust.<br>TWA: 3 mg/m³. Form: Respirable dust.                                                                                                                |
| triphenyl phosphate                                                                    | <b>ACGIH TLV (United States, 1/2025)</b><br>TWA 8 hours: 3 mg/m³.                                                                                                                                                               |
| Synthetic fibers, alk. earth silicate                                                  | <b>ACGIH TLV (United States, 2011)</b><br>TWA 8 hours: 10 mg/m³ (Total dust).<br>TWA 8 hours: 3 mg/m³ (Respirable fraction).                                                                                                    |
| Cashew, nutshell liq.                                                                  | <b>Ministry of Health (Viet Nam, 4/2025) [vegetable oil]</b><br>TWA 8 hours: 10 mg/m³. Form: mist - total dust.                                                                                                                 |
| glass, oxide, chemicals                                                                | <b>ACGIH TLV (United States)</b><br>TWA: 10 mg/m³. Form: Total dust.<br>TWA: 3 mg/m³. Form: Respirable.<br>TWA: 1. Form: Continuous filament glass fibers.<br>TWA: 5 mg/m³ (Inhalable). Form: Continuous filament glass fibers. |

- Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, 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 eyewash stations and safety showers are close to the workstation location.
- Eye/face protection

: Chemical splash goggles.
- Skin protection

## Section 8. Exposure controls/personal 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                 | : polyethylene butyl rubber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 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.                     |
| Color                                        | : Not available.              |
| Odor                                         | : Characteristic.             |
| Odor threshold                               | : Not available.              |
| pH                                           | : Not applicable.             |
| Melting point                                | : Not available.              |
| Boiling point                                | : >37.78°C (>100°F)           |
| Flash point                                  | : Closed cup: Not applicable. |
| Evaporation rate                             | : Not available.              |
| Flammability (solid, gas)                    | : Not available.              |
| Lower and upper explosive (flammable) limits | : Not available.              |
| Vapor pressure                               | : Not available.              |
| Vapor density                                | : Not available.              |
| Relative density                             | : 1.56                        |

|                 |              |               |
|-----------------|--------------|---------------|
| Solubility(ies) | <b>Media</b> | <b>Result</b> |
|                 | cold water   | Not soluble   |

|                                        |                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Partition coefficient: n-octanol/water | : Not applicable.                                                                                                                        |
| Auto-ignition temperature              | : Not available.                                                                                                                         |
| Decomposition temperature              | : Not available.                                                                                                                         |
| Viscosity                              | : Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C): >21 mm <sup>2</sup> /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 phosphorus oxides halogenated compounds metal oxide/oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                                                                | Result                          | Species | Dose        | Exposure |
|----------------------------------------------------------------------------------------|---------------------------------|---------|-------------|----------|
| hexaboron dizinc undecaoxide                                                           | LC50 Inhalation Dusts and mists | Rat     | >5 mg/l     | 4 hours  |
| Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)- | LD50 Dermal                     | Rabbit  | >5000 mg/kg | -        |
|                                                                                        | LD50 Oral                       | Rat     | >5000 mg/kg | -        |
|                                                                                        | LD50 Dermal                     | Rabbit  | >2000 mg/kg | -        |
|                                                                                        | LD50 Oral                       | Rat     | 4200 mg/kg  | -        |
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin                           | LD50 Dermal                     | Rabbit  | >2 g/kg     | -        |
| tris(2-chloro-1-methylethyl) phosphate                                                 | LD50 Oral                       | Rat     | >2 g/kg     | -        |
|                                                                                        | LC50 Inhalation Dusts and mists | Rat     | >7 mg/l     | 4 hours  |
| Polyphosphoric acids, ammonium salts                                                   | LD50 Dermal                     | Rabbit  | >5 g/kg     | -        |
|                                                                                        | LD50 Oral                       | Rat     | 1500 mg/kg  | -        |
|                                                                                        | LD50 Oral                       | Rat     | 4.74 g/kg   | -        |
| triphenyl phosphate                                                                    | LD50 Dermal                     | Rabbit  | >7900 mg/kg | -        |
| Epoxy resin (MW ≤ 700)                                                                 | LD50 Oral                       | Rat     | 3500 mg/kg  | -        |
|                                                                                        | LD50 Dermal                     | Rabbit  | >2 g/kg     | -        |
| 2,2-bis(acryloyloxymethyl) butyl acrylate                                              | LD50 Oral                       | Rat     | >2 g/kg     | -        |
|                                                                                        | LD50 Dermal                     | Rabbit  | 5170 mg/kg  | -        |
|                                                                                        | LD50 Oral                       | Rat     | 5.19 g/kg   | -        |

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

#### Irritation/Corrosion



## Section 11. Toxicological information

| Product/ingredient name                                      | Result                   | Species | Score | Exposure         | Observation |
|--------------------------------------------------------------|--------------------------|---------|-------|------------------|-------------|
| hexaboron dizinc undecaoxide                                 | Eyes - Cornea opacity    | Rabbit  | 33    | 24 hours         | 74 hours    |
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin | Eyes - Mild irritant     | Rabbit  | -     | 0.083g<br>100 mg | -           |
|                                                              | Eyes - Moderate irritant | Rabbit  | -     | -                | -           |
|                                                              | Skin - Moderate irritant | Rabbit  | -     | -                | -           |
|                                                              | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 UI  | -           |
|                                                              | Skin - Severe irritant   | Rabbit  | -     | 24 hours 2 mg    | -           |
| Epoxy resin (MW ≤ 700)                                       | Eyes - Mild irritant     | Rabbit  | -     | -                | -           |
|                                                              | Skin - Mild irritant     | Rabbit  | -     | -                | -           |
| 2,2-bis(acryloyloxymethyl) butyl acrylate                    | Skin - Irritant          | Rabbit  | -     | -                | -           |

### 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.

### Sensitization

| Product/ingredient name                                      | Route of exposure | Species | Result      |
|--------------------------------------------------------------|-------------------|---------|-------------|
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin | skin              | Mouse   | Sensitizing |
| Epoxy resin (MW ≤ 700)                                       | skin              | Mouse   | Sensitizing |
| 2,2-bis(acryloyloxymethyl) butyl acrylate                    | skin              | Rabbit  | Sensitizing |

**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

| Product/ingredient name      | Maternal toxicity | Fertility | Development toxin | Species | Dose            | Exposure                 |
|------------------------------|-------------------|-----------|-------------------|---------|-----------------|--------------------------|
| hexaboron dizinc undecaoxide | Positive          | Positive  | Positive          | Rat     | Oral: 375 mg/kg | 90 days; 7 days per week |

**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)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

## Section 11. Toxicological information

### Aspiration hazard

Not available.

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

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.  
**Ingestion** : May be harmful if swallowed.

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

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations  
**Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

#### Short term exposure

**Potential immediate effects** : There are no data available on the mixture itself.  
**Potential delayed effects** : There are no data available on the mixture itself.

#### Long term exposure

**Potential immediate effects** : There are no data available on the mixture itself.  
**Potential delayed effects** : There are no data available on the mixture itself.

### Potential chronic health effects

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route  | ATE value     |
|--------|---------------|
| Oral   | 3710.49 mg/kg |
| Dermal | 4806.15 mg/kg |

#### Other information :

Sanding and grinding dusts may be harmful if inhaled. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

## Section 12. Ecological information

### Toxicity

| Product/ingredient name                                                                                                                                                                                           | Result                            | Species                                  | Exposure |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------|----------|
| hexaboron dizinc undecaoxide                                                                                                                                                                                      | Acute EC50 76 mg/l                | Daphnia - <i>Daphnia magna</i>           | 48 hours |
| Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)-reaction product: bisphenol-A-(epichlorohydrin); epoxy resin<br>Polyphosphoric acids, ammonium salts<br>triphenyl phosphate | Acute LC50 2.17 mg/l              | Fish - <i>Salmo gairdneri</i>            | 96 hours |
|                                                                                                                                                                                                                   | Acute LC50 >100 mg/l              | Fish                                     | 96 hours |
|                                                                                                                                                                                                                   | Chronic NOEC 0.3 mg/l             | Daphnia                                  | 21 days  |
|                                                                                                                                                                                                                   | Acute EC50 730.5 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours |
|                                                                                                                                                                                                                   | Acute LC50 0.09 mg/l Fresh water  | Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours |
| Epoxy resin (MW ≤ 700)<br>2,2-bis(acryloyloxymethyl) butyl acrylate                                                                                                                                               | Chronic NOEC 0.1 mg/l             | Algae - <i>Desmodesmus subspicatus</i>   | 3 days   |
|                                                                                                                                                                                                                   | Acute LC50 1.8 mg/l               | Daphnia                                  | 48 hours |
|                                                                                                                                                                                                                   | Chronic NOEC 0.3 mg/l             | Daphnia                                  | 21 days  |
|                                                                                                                                                                                                                   | Acute LC50 0.87 mg/l              | Fish                                     | 96 hours |

### Persistence and degradability

| Product/ingredient name                                      | Test      | Result        | Dose | Inoculum |
|--------------------------------------------------------------|-----------|---------------|------|----------|
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin | OECD 301F | 5 % - 28 days | -    | -        |
| Epoxy resin (MW ≤ 700)                                       | OECD 301F | 5 % - 28 days | -    | -        |

## Section 12. Ecological information

| Product/ingredient name                                      | Aquatic half-life | Photolysis | Biodegradability |
|--------------------------------------------------------------|-------------------|------------|------------------|
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin | -                 | -          | Not readily      |
| Epoxy resin (MW ≤ 700)                                       | -                 | -          | Not readily      |

### Bioaccumulative potential

| Product/ingredient name                                      | LogP <sub>ow</sub> | BCF               | Potential |
|--------------------------------------------------------------|--------------------|-------------------|-----------|
| hexaboron dizinc undecaoxide                                 | -                  | 60960             | High      |
| reaction product: bisphenol-A-(epichlorohydrin); epoxy resin | 2.64 to 3.78       | 31                | Low       |
| tris(2-chloro-1-methylethyl) phosphate                       | 2.68               | 7.94 [OECD 305 C] | Low       |
| triphenyl phosphate                                          | 4.63               | 190.55            | Low       |
| Epoxy resin (MW ≤ 700)                                       | 3                  | 31                | Low       |
| Cashew, nutshell liq.                                        | >4.78              | -                 | High      |
| 2,2-bis(acryloyloxymethyl) butyl acrylate                    | 0.67               | -                 | Low       |

### Mobility in soil

**Soil/Water partition coefficient** : 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

|                                | UN                                                          | IMDG                                                        | IATA                                                        |
|--------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| <b>UN number</b>               | UN3082                                                      | UN3082                                                      | UN3082                                                      |
| <b>UN proper shipping name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT) |
|                                |                                                             |                                                             |                                                             |

Section 14. Transport information

|                             |                 |                                |                 |
|-----------------------------|-----------------|--------------------------------|-----------------|
| Transport hazard class(es)  | 9               | 9                              | 9               |
| Packing group               | III             | III                            | III             |
| Environmental hazards       | Yes.            | Yes.                           | Yes.            |
| Marine pollutant substances | Not applicable. | (hexaboron dizinc undecaoxide) | Not applicable. |

Additional information

UN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

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

Safety, health and environmental regulations specific for the product

:

- Law on Chemicals No. 69/2025/QH15;
- Decree No. 24/2026/NĐ-CP regulating the lists of chemicals under the scope of the Law on Chemicals;
- Decree No. 25/2026/NĐ-CP detailing and providing measures for organizing and guiding the implementation of certain provisions of the Law on Chemicals related to the development of a safe chemical industry and chemical security;
- Decree No. 26/2026/NĐ-CP detailing and guiding the implementation of certain provisions of the Law on Chemicals related to the management of chemical activities and hazardous chemicals in products and goods;
- Decree No. 28/2026/NĐ-CP dated January 19, 2026: Promulgating lists of narcotic substances and precursors;
- Circular No. 01/2026/TT-BCT detailing and guiding the implementation of certain provisions of the Law on Chemicals and Decree No. 26/2026/NĐ-CP of the Government on the management of chemical activities and hazardous chemicals in products and goods;
- Circular No. 02/2026/TT-BCT regulating several measures for implementing the Law on Chemicals and Decree No. 25/2026/NĐ-CP of the Government, which provides detailed regulations and measures for organizing and guiding the implementation of certain provisions of the Law on Chemicals related to the development of a safe chemical industry and chemical security;
- Decree No. 71/2019/NĐ-CP dated August 30, 2019: Regulations on administrative penalties in the field of chemicals and industrial explosives;
- National Technical Regulation QCVN 05A:2020/BCT on safety in production, trading, use, storage, and transportation of hazardous chemicals and other relevant legal regulations on conditional chemical sectors in industry;
- Circular No. 19/2024/TT-BCT of the Ministry of Industry and Trade: Issuing Amendment 1:2024 of QCVN 05A:2020/BCT – National technical regulation on safety in production, trading, use, storage, and transportation of hazardous chemicals;
- Decree No. 34/2024/NĐ-CP dated March 31, 2024: Regulations on the list of dangerous goods and transportation of dangerous goods by road motor vehicles and inland waterways;

## Section 15. Regulatory information

- Decree No. 161/2024/NĐ-CP: Regulations on the list of dangerous goods, transportation of dangerous goods, procedures for licensing, and certification of training completion for drivers and transport operators of dangerous goods by road.

### [International regulations](#)

#### [Montreal Protocol](#)

Not listed.

#### [Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

## Section 16. Other information

### [History](#)

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of issue/Date of revision</b> | : 18 August 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Date of previous issue</b>         | : 7/15/2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Version</b>                        | : 1.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Prepared by</b>                    | : EHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Key to abbreviations</b>           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>UN = United Nations |

**References** : Not available.

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.