# SAFETY DATA SHEET

**Date of issue/Date of revision** 28 October 2026 **Version** 1.07

## Section 1. Chemical identification and supplier information

**Product code** : 000001204044

**Product name** : SIGMASHIELD 680 BASE REDBROWN

**CAS number** : Mixture

**EC number** : Mixture.

**Other means of identification**

00479979

**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** :
FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (dermal) - Category 5
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
AQUATIC TOXICITY (ACUTE) - Category 3
AQUATIC TOXICITY (CHRONIC) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 53%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 61.3%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 64.3%

**GHS label elements**

# Section 2. Hazards identification

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : Flammable liquid and vapor.
May be harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response** : Get medical advice or attention if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. 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. Store in a well-ventilated place. Keep container tightly closed.

**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** : 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**

**CAS number** : Mixture

**EC number** : Mixture.

| Ingredient name | CAS number | Chemical formula | % |
|---|---|---|---|
| Talc , not containing asbestiform fibres | 14807-96-6 | H2-03-Si.3/4Mg | ≥10 - ≤25 |
| Epoxy Resin (700<MW<=1100) | 25036-25-3 | (C21H24O4. C15H16O2)x | ≥10 - ≤25 |
| crystalline silica, non-respirable powder (>10 microns) | 14808-60-7 | O2-Si | ≥10 - ≤25 |
| xylene | 1330-20-7 | C8-H10 | ≥10 - ≤17 |
| diiron trioxide | 1309-37-1 | Fe2-O3 | ≤10 |
| Aluminium powder (stabilized) | 7429-90-5 | Al | ≤5 |

# Section 3. Composition/information on ingredients

| | | | |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | 64742-94-5 | - | ≤5 |
| ethylbenzene | 100-41-4 | C8H10 | ≤3 |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 64742-48-9 | - | ≤3 |
| 2-methylpropan-1-ol | 78-83-1 | C4H10O | ≤2.4 |
| 1-methoxy-2-propanol | 107-98-2 | C4H10O2 | ≤3 |
| Phenol, styrenated | 61788-44-1 | - | ≤2.2 |
| crystalline silica, respirable powder (<10 microns) | 14808-60-7 | O2-Si | ≤3 |
| Urea, polymer with formaldehyde, isobutylated | 68002-18-6 | (CH4N2O.CH2O)x | ≤3 |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | 911674-82-3 | - | <1 |
| naphthalene | 91-20-3 | C10H8 | <1 |
| 1,2,3-trimethylbenzene | 526-73-8 | C9H12 | <1 |
| 1,2,4-trimethylbenzene | 95-63-6 | C9H12 | <1 |
| toluene | 108-88-3 | C7H8 | ≤0.3 |

**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.

**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** : Harmful if inhaled. May cause respiratory irritation.

**Skin contact** : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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

### Over-exposure signs/symptoms

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

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

# Section 4. First aid measures

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

**Ingestion** : No specific data.

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

**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.

**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. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

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

**Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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
metal oxide/oxides
Formaldehyde.

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

# Section 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

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

**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.

## Methods and materials for containment and cleaning up

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

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

# Section 7. Handling and storage

## Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). 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 vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general 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.

# Section 7. Handling and storage

**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 locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| Talc , not containing asbestiform fibres | **Ministry of Health (Viet Nam, 4/2025) [soapstone (total dust)/(respirable dust)]**<br>TWA 8 hours: 1 mg/m³. Form: respirable dust.<br>TWA 8 hours: 2 mg/m³. Form: total dust concentration.<br>**Ministry of Health (Viet Nam, 4/2025) [soapstone (contains 1% quartz)]**<br>TWA 8 hours: 6 mg/m³. |
| crystalline silica, non-respirable powder (>10 microns) | **ACGIH TLV (United States, 1/2026) [Silica, crystalline]**<br>TWA 8 hours: 0.025 mg/m³. Form: Respirable fraction. |
| xylene | **Ministry of Health (Viet Nam, 4/2025) [xylene]**<br>TWA 8 hours: 100 mg/m³.<br>STEL 15 minutes: 300 mg/m³. |
| diiron trioxide | **Ministry of Health (Viet Nam, 4/2025)**<br>TWA 8 hours: 5 mg/m³. Form: Dust and fumes.<br>STEL 15 minutes: 10 mg/m³. Form: Dust and fumes. |
| Aluminium powder (stabilized) | **Ministry of Health (Viet Nam, 4/2025)**<br>TWA 8 hours: 1 mg/m³. Form: respirable dust.<br>TWA 8 hours: 2 mg/m³. Form: total dust concentration. |
| ethylbenzene | **ACGIH TLV (United States, 1/2026)**<br>Ototoxicant.<br>TWA 8 hours: 20 ppm. |
| 2-methylpropan-1-ol | **Ministry of Health (Viet Nam, 4/2025) [butanols]**<br>TWA 8 hours: 150 mg/m³.<br>STEL 15 minutes: 250 mg/m³. |
| 1-methoxy-2-propanol | **ACGIH TLV (United States, 1/2026)**<br>TWA 8 hours: 50 ppm.<br>TWA 8 hours: 184 mg/m³.<br>STEL 15 minutes: 100 ppm.<br>STEL 15 minutes: 369 mg/m³. |
| crystalline silica, respirable powder (<10 microns) | **ACGIH TLV (United States, 1/2026) [Silica,** |

# Section 8. Exposure controls/personal protection

| | |
|---|---|
| | **crystalline]**<br>TWA 8 hours: 0.025 mg/m³. Form: Respirable fraction. |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | **ACGIH TLV (United States)**<br>TWA: 3 mg/m³ (Respirable fraction).<br>TWA: 10 mg/m³ (Total dust). |
| naphthalene | **Ministry of Health (Viet Nam, 4/2025)**<br>TWA 8 hours: 40 mg/m³.<br>STEL 15 minutes: 75 mg/m³. |
| 1,2,3-trimethylbenzene | **ACGIH TLV (United States, 1/2026) [trimethyl benzene, isomers]**<br>TWA 8 hours: 10 ppm. |
| 1,2,4-trimethylbenzene | **ACGIH TLV (United States, 1/2026)**<br>TWA 8 hours: 10 ppm. |
| toluene | **Ministry of Health (Viet Nam, 4/2025)**<br>TWA 8 hours: 100 mg/m³.<br>STEL 15 minutes: 300 mg/m³. |

**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** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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**

**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** : butyl rubber

# 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

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

# Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Color** : Brownish-red.

**Odor** : Aromatic. [Slight]

**Odor threshold** : Not available.

**pH** : Not applicable.

**Melting point** : Not available.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 30°C (86°F)

**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** : 1.48

**Solubility(ies)** :

| Media | Result |
|---|---|
| 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.
Kinematic (room temperature): >400 $mm^2/s$
Kinematic (40°C): >21 $mm^2/s$

**Viscosity** : > 100 s (ISO 6mm)

# 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. metal oxide/oxides

# Section 11. Toxicological information

## Information on toxicological effects

### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Epoxy Resin (700<MW <=1100) | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| diiron trioxide | LC50 Inhalation Dusts and mists | Rat | >5 mg/l | 4 hours |
| | LD50 Oral | Rat | 10 g/kg | - |
| Aluminium powder (stabilized) | LC50 Inhalation Dusts and mists | Rat | >5 mg/l | 4 hours |
| | LD50 Oral | Rat | >15900 mg/kg | - |
| Solvent naphtha (petroleum), heavy arom. | LC50 Inhalation Dusts and mists | Rat | >5.2 mg/l | 4 hours |
| | LD50 Oral | Rat | >5 g/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >6 g/kg | - |
| 2-methylpropan-1-ol | LC50 Inhalation Vapor | Rat | 24.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 2460 mg/kg | - |
| | LD50 Oral | Rat | 2830 mg/kg | - |
| 1-methoxy-2-propanol | LC50 Inhalation Vapor | Rat | >7000 ppm | 6 hours |
| | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 5.2 g/kg | - |
| Phenol, styrenated | LD50 Dermal | Rabbit | >5010 mg/kg | - |
| | LD50 Oral | Rat | 3550 mg/kg | - |
| Urea, polymer with formaldehyde, isobutylated | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| Reaction products of | LC50 Inhalation Dusts and mists | Rat | >5.08 mg/l | 4 hours |

# Section 11. Toxicological information

| | | | | |
|---|---|---|---|---|
| 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | | | | |
| naphthalene | LD50 Dermal | Rabbit | >20 g/kg | - |
| | LD50 Oral | Rat | 490 mg/kg | - |
| 1,2,3-trimethylbenzene | LD50 Oral | Rat | 11.4 g/kg | - |
| 1,2,4-trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| toluene | LC50 Inhalation Vapor | Rat | 49 g/m³ | 4 hours |
| | LD50 Oral | Rat | 5580 mg/kg | - |

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

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| 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.

**Sensitization**

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Phenol, styrenated | skin | Mouse | 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**

**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 | Category | Route of exposure | Target organs |
|---|---|---|---|
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| xylene | Category 3 | - | Respiratory tract irritation |
| Solvent naphtha (petroleum), heavy arom. | Category 3 | - | Narcotic effects |
| 2-methylpropan-1-ol | Category 3 | - | Respiratory tract irritation |
| - | Category 3 | - | Narcotic effects |
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |
| 1,2,4-trimethylbenzene | Category 3 | - | Respiratory tract irritation |

# Section 11. Toxicological information

| | | | |
|---|---|---|---|
| toluene | Category 3 | - | Narcotic effects |

**Specific target organ toxicity (repeated exposure)**

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| ethylbenzene | Category 2 | - | hearing organs |
| crystalline silica, respirable powder (<10 microns) | Category 1 | inhalation | - |
| naphthalene | Category 2 | - | - |
| toluene | Category 2 | inhalation | - |

**Aspiration hazard**

| Name | Result |
|---|---|
| xylene | ASPIRATION HAZARD - Category 1 |
| Solvent naphtha (petroleum), heavy arom. | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | ASPIRATION HAZARD - Category 1 |
| 2-methylpropan-1-ol | ASPIRATION HAZARD - Category 2 |
| toluene | ASPIRATION HAZARD - Category 1 |

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

**Potential acute health effects**

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

**Inhalation** : Harmful if inhaled. May cause respiratory irritation.

**Skin contact** : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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

**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:
respiratory tract irritation
coughing

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

**Ingestion** : No specific data.

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

**Short term exposure**

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

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

**Long term exposure**

# Section 11. Toxicological information

**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** : 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.

## Numerical measures of toxicity

### Acute toxicity estimates

| Route | ATE value |
|---|---|
| Oral | 6708.1 mg/kg |
| Dermal | 2926.03 mg/kg |
| Inhalation (vapors) | 29.51 mg/l |
| Inhalation (dusts and mists) | 3.79 mg/l |

**Other information** :

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

# Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| diiron trioxide | Acute EC50 >100 mg/l | Daphnia | 48 hours |
| Solvent naphtha (petroleum), heavy arom. | NOEL 0.48 mg/l Fresh water | Daphnia | 21 days |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - *Ceriodaphnia dubia* | - |
| 2-methylpropan-1-ol | Acute EC50 1100 mg/l | Daphnia | 48 hours |
| 1-methoxy-2-propanol | Acute LC50 23300 mg/l | Daphnia | 48 hours |
| | Acute LC50 >4500 mg/l Fresh water | Fish | 96 hours |
| Phenol, styrenated | Acute EC50 3.8 mg/l | Daphnia | 48 hours |
| Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine | Acute LC50 >100 mg/l | Fish | 96 hours |
| toluene | EC50 3.78 mg/l | Daphnia | 48 hours |
| | LC50 5.5 mg/l | Fish | 96 hours |

## Persistence and degradability

# Section 12. Ecological information

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| ethylbenzene | - | 79 % - Readily - 10 days | - | - |
| Phenol, styrenated | OECD 301F | 7 % - Not readily - 28 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |
| Phenol, styrenated | - | - | Not readily |
| toluene | - | - | Readily |

## Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| xylene | 3.12 | 7.4 to 18.5 | Low |
| Solvent naphtha (petroleum), heavy arom. | 2.8 to 6.5 | - | High |
| ethylbenzene | 3.6 | 79.43 | Low |
| 2-methylpropan-1-ol | 1 | - | Low |
| 1-methoxy-2-propanol | <1 | - | Low |
| naphthalene | 3.4 | 85.11 [OECD 305] | Low |
| 1,2,3-trimethylbenzene | 3.66 | 194.98 | Low |
| 1,2,4-trimethylbenzene | 3.63 | 120.23 | Low |
| toluene | 2.73 | 90 | 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# Section 14. Transport information

| | UN | IMDG | IATA |
|---|---|---|---|
| **UN number** | UN1263 | UN1263 | UN1263 |
| **UN proper shipping name** | PAINT | PAINT | PAINT |
| **Transport hazard class(es)** | 3 | 3 | 3 |
| **Packing group** | III | III | III |
| **Environmental hazards** | No. | No. | No. |
| **Marine pollutant substances** | Not applicable. | Not applicable. | Not applicable. |

**Additional information**

**UN** : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.1.

**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;

# Section 15. Regulatory information

- 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;
- 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

| | | |
|---|---|---|
| **Date of issue/Date of revision** | : | 28 October 2026 |
| **Date of previous issue** | : | 6/20/2026 |
| **Version** | : | 1.07 |
| **Prepared by** | : | EHS |
| **Key to abbreviations** | : | 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.**