# SAFETY DATA SHEET

**The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2023.**

**Date of issue/Date of revision** 28 October 2026
**Version** 2

## Section 1. Identification

**Product name** : SIGMASHIELD 680 BASE REDBROWN
**Product code** : 000001204044
**Other means of identification** : 00479979
**Product type** : Liquid.

**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** : Not applicable.

**Supplier** :
PPG Canada Inc.
5676 Timberlea Blvd
Mississauga ON L4W 4M6
Canada
+1 905-629-7999

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

**Emergency telephone number** : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

**Technical Phone Number** : 888-977-4762

## Section 2. Hazard identification

**Classification of the substance or mixture** :
FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1B
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Health Hazards Not Otherwise Classified - Category 1

**GHS label elements**

# Section 2. Hazard identification

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.
May cause cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure. (hearing organs)
Prolonged or repeated contact may dry skin and cause irritation.

**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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response** : IF exposed or concerned: Get medical advice or attention. 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 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.

**Supplemental label elements** : Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. 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. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 16.3% (oral), 53% (dermal), 61.3% (inhalation)

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture
**Product name** : SIGMASHIELD 680 BASE REDBROWN
**Other means of identification** : 00479979

## CAS number/other identifiers

| Ingredient name | Synonyms | % (w/w) | CAS number |
|---|---|---|---|
| Talc , not containing asbestiform fibres | Talc; magnesium silicate monohydrate (talc) not containing asbestiform fibres | 10 - 30* | 14807-96-6 |
| Epoxy Resin (700<MW<=1100) | phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bis[oxirane] (700<MW<=1100) | 10 - 30* | 25036-25-3 |
| crystalline silica, non-respirable powder (>10 microns) | α-quartz, respirable powder; quartz, respirable powder | 10 - 30* | 14808-60-7 |
| xylene | Benzene, dimethyl-; Xylol; Benzene, dimethyl-, mixed isomers; xylene, mixed isomers, pure; xylene, crude | 7 - 13* | 1330-20-7 |
| diiron trioxide | Iron oxide (Fe2O3); Iron oxide; C.I. Pigment Red 101; Ferric oxide; Iron oxide, anhydrous | 3 - 7* | 1309-37-1 |
| aluminium powder (stabilised) | aluminium powder (stabilised) | 1 - 5* | 7429-90-5 |
| Solvent naphtha (petroleum), heavy arom. | Kerosine - unspecified; Solvent naphtha, petroleum, heavy aromatic; (Polyethyl) benzenes; Solvent naphtha, petroleum, heavy arom. - ultra low naphthalene; Heavy aromatic solvent naphtha | 1 - 5* | 64742-94-5 |
| ethylbenzene | Benzene, ethyl-; Phenylethane; Ethylbenzol; photosensitive emulsion consisting of cyclized polyisoprene containing: — 55 % or more but not more than 75 % by weight of xylene and — 12 % or more but not more than 18 % by weight of ethylbenzene; EB | 1 - 5* | 100-41-4 |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | | 1 - 5* | 64742-48-9 |
| 2-methylpropan-1-ol | iso-butanol; 1-Propanol, 2-methyl-; Isobutyl alcohol; Isobutanol; 2-Methyl-1-propanol | 1 - 5* | 78-83-1 |
| 1-methoxy-2-propanol | monopropylene glycol methyl ether; 1-methoxypropan-2-ol; 2-Propanol, 1-methoxy-; Propylene glycol monomethyl ether; Dowtherm 209 | 1 - 5* | 107-98-2 |
| Phenol, styrenated | Styrenated phenol; Phenol modified styrene and styrene homologues; phenol, | 1 - 5* | 61788-44-1 |

# Section 3. Composition/information on ingredients

| | | | |
|---|---|---|---|
| | styrenated,reaction mass of 2,4,6-tris (1-phenyl-ethyl)phenol and Bis (1-phenylethyl) phenol; Styrenated phenols; Antioxidant SP | | |
| crystalline silica, respirable powder (<10 microns) | α-quartz, respirable powder; quartz, respirable powder | 1 - 5* | 14808-60-7 |
| naphthalene | White tar; Tar camphor; Naphthalin; naphthalene, pure; naphthalene, crude | 0.1 - 1* | 91-20-3 |
| toluene | Benzene, methyl-; Methylbenzene; Toluol; Phenyl methane; Methyl benzol | 0.1 - 1* | 108-88-3 |

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

**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

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

## 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** : 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

# Section 4. First-aid measures

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

**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.

**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.

# Section 5. Fire-fighting measures

**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).

## 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. 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 breathe vapor or mist. Do not ingest. 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

# Section 7. Handling and storage

electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

**Advice on general occupational hygiene** : Wash hands thoroughly after handling.

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

**Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| Talc , not containing asbestiform fibres | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 2 mg/m³. Form: respirable particulate.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>TWA 8 hours: 2 mg/m³. Form: respirable.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>TWAEV 8 hours: 2 mg/m³. Form: respirable aerosol fraction.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>TWA 8 hours: 2 mg/m³. Form: respirable fraction. |
| Epoxy Resin (700<MW<=1100)<br>crystalline silica, non-respirable powder (>10 microns) | None.<br>**CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 0.025 mg/m³. Form: respirable particulate.<br>**CA British Columbia Provincial (Canada, 8/2025) [silica, crystalline - alpha quartz and cristobalite]**<br>TWA 8 hours: 0.025 mg/m³. Form: respirable.<br>**CA Ontario Provincial (Canada, 6/2019) [Silica, Crystalline (Quartz/Tripoli)]** |

# Section 8. Exposure controls/personal protection

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|---|---|
| | TWA 8 hours: 0.1 mg/m³. Form: respirable particulate matter.<br>**CA Quebec Provincial (Canada, 2/2024) [Silica Crystalline -Quartz]**<br>TWAEV 8 hours: 0.1 mg/m³. Form: respirable aerosol fraction.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>TWA 8 hours: 0.05 mg/m³. Form: respirable fraction. |
| xylene | **CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene]**<br>OEL 8 hours: 100 ppm.<br>OEL 15 minutes: 651 mg/m³.<br>OEL 15 minutes: 150 ppm.<br>OEL 8 hours: 434 mg/m³.<br>**CA British Columbia Provincial (Canada, 8/2025) [xylene, all isomers]**<br>TWA 8 hours: 20 ppm.<br>**CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)]**<br>STEL 15 minutes: 150 ppm.<br>TWA 8 hours: 100 ppm.<br>**CA Quebec Provincial (Canada, 2/2024) [Xylene]**<br>TWAEV 8 hours: 100 ppm.<br>TWAEV 8 hours: 434 mg/m³.<br>STEV 15 minutes: 150 ppm.<br>STEV 15 minutes: 651 mg/m³.<br>**CA Saskatchewan Provincial (Canada, 4/2021) [Xylene]**<br>STEL 15 minutes: 150 ppm.<br>TWA 8 hours: 100 ppm. |
| diiron trioxide | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 5 mg/m³. Form: respirable.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>TWA 8 hours: 10 mg/m³. Form: total dust.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>TWA 8 hours: 5 mg/m³. Form: respirable particulate matter.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>TWAEV 8 hours: 5 mg/m³ (as Fe). Form: dust and fume.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>STEL 15 minutes: 10 mg/m³ (measured as Fe). Form: dust and fume.<br>TWA 8 hours: 5 mg/m³ (measured as Fe). Form: dust and fume. |
| Aluminium powder (stabilized) | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 10 mg/m³. Form: metal dust.<br>**CA British Columbia Provincial (Canada, 8/2025) [aluminum metal and insoluble** |

# Section 8. Exposure controls/personal protection

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|---|---|
| | **compounds]**<br>TWA 8 hours: 1 mg/m³. Form: respirable.<br>**CA Ontario Provincial (Canada, 6/2019) [Aluminum metal and insoluble compounds]**<br>TWA 8 hours: 1 mg/m³. Form: respirable particulate matter.<br>**CA Quebec Provincial (Canada, 2/2024) [aluminum and its compounds]**<br>TWAEV 8 hours: 5 mg/m³. Form: respirable aerosol fraction.<br>**CA Saskatchewan Provincial (Canada, 4/2021) [Aluminum pyro powders and metal dust]**<br>STEL 15 minutes: 20 mg/m³ (measured as Al). Form: metal dust.<br>STEL 15 minutes: 10 mg/m³ (measured as Al). Form: pyro powder.<br>TWA 8 hours: 10 mg/m³ (measured as Al). Form: metal dust.<br>TWA 8 hours: 5 mg/m³ (measured as Al). Form: pyro powder. |
| Solvent naphtha (petroleum), heavy arom.<br>ethylbenzene | None.<br>**CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 100 ppm.<br>OEL 8 hours: 434 mg/m³.<br>OEL 15 minutes: 543 mg/m³.<br>OEL 15 minutes: 125 ppm.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>TWA 8 hours: 20 ppm.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>TWA 8 hours: 20 ppm.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>TWAEV 8 hours: 20 ppm.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>STEL 15 minutes: 125 ppm.<br>TWA 8 hours: 100 ppm. |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | None. |
| 2-methylpropan-1-ol | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 50 ppm.<br>OEL 8 hours: 152 mg/m³.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>TWA 8 hours: 50 ppm.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>TWA 8 hours: 50 ppm.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>TWAEV 8 hours: 50 ppm.<br>TWAEV 8 hours: 152 mg/m³.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>STEL 15 minutes: 60 ppm. |

# Section 8. Exposure controls/personal protection

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|---|---|
| | TWA 8 hours: 50 ppm. |
| 1-methoxy-2-propanol | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 100 ppm.<br>OEL 15 minutes: 553 mg/m³.<br>OEL 8 hours: 369 mg/m³.<br>OEL 15 minutes: 150 ppm.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>STEL 15 minutes: 100 ppm.<br>TWA 8 hours: 50 ppm.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>TWA 8 hours: 50 ppm.<br>STEL 15 minutes: 100 ppm.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>TWAEV 8 hours: 50 ppm.<br>STEV 15 minutes: 100 ppm.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>STEL 15 minutes: 150 ppm.<br>TWA 8 hours: 100 ppm. |
| Phenol, styrenated | None. |
| crystalline silica, respirable powder (<10 microns) | **CA Alberta Provincial (Canada, 3/2023)**<br>OEL 8 hours: 0.025 mg/m³. Form: respirable particulate.<br>**CA British Columbia Provincial (Canada, 8/2025) [silica, crystalline - alpha quartz and cristobalite]**<br>TWA 8 hours: 0.025 mg/m³. Form: respirable.<br>**CA Ontario Provincial (Canada, 6/2019) [Silica, Crystalline (Quartz/Tripoli)]**<br>TWA 8 hours: 0.1 mg/m³. Form: respirable particulate matter.<br>**CA Quebec Provincial (Canada, 2/2024) [Silica Crystalline -Quartz]**<br>TWAEV 8 hours: 0.1 mg/m³. Form: respirable aerosol fraction.<br>**CA Saskatchewan Provincial (Canada, 4/2021)**<br>TWA 8 hours: 0.05 mg/m³. Form: respirable fraction. |
| naphthalene | **CA Alberta Provincial (Canada, 3/2023)**<br>Absorbed through skin.<br>OEL 15 minutes: 15 ppm.<br>OEL 8 hours: 10 ppm.<br>OEL 8 hours: 52 mg/m³.<br>OEL 15 minutes: 79 mg/m³.<br>**CA British Columbia Provincial (Canada, 8/2025)** Absorbed through skin.<br>TWA 8 hours: 10 ppm.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>Absorbed through skin.<br>TWA 8 hours: 10 ppm.<br>**CA Quebec Provincial (Canada, 2/2024)**<br>Absorbed through skin. |

# Section 8. Exposure controls/personal protection

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|---|---|
| | TWAEV 8 hours: 10 ppm.<br>**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin.<br>STEL 15 minutes: 15 ppm.<br>TWA 8 hours: 10 ppm. |
| toluene | **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin.<br>OEL 8 hours: 50 ppm.<br>OEL 8 hours: 188 mg/m³.<br>**CA British Columbia Provincial (Canada, 8/2025)**<br>TWA 8 hours: 20 ppm.<br>**CA Ontario Provincial (Canada, 6/2019)**<br>TWA 8 hours: 20 ppm.<br>**CA Quebec Provincial (Canada, 2/2024)** Ototoxicant.<br>TWAEV 8 hours: 20 ppm.<br>**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin.<br>STEL 15 minutes: 60 ppm.<br>TWA 8 hours: 50 ppm. |

**Consult local authorities for acceptable exposure limits.**

**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**

# 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** : 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. 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]

**pH** : Not applicable.

**Melting point** : Not available.

**Boiling point** : >37.78°C (>100°F)

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

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Flammability** : Not available.

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

**Vapor pressure** : Not available.

**Vapor density** : Not available.

**Relative density** : 1.48

**Density ( lbs / gal )** : 12.35

**Solubility(ies)** :

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

**Partition coefficient: n-octanol/water** : Not applicable.

# Section 9. Physical and chemical properties

**Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): >400 $mm^2/s$ (>400 cSt)
Kinematic (40°C (104°F)): >21 $mm^2/s$ (>21 cSt)

**% Solid. (w/w)** : 74.595

**Particle characteristics**

**Median particle size** : Not applicable.

# 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.
Refer to protective measures listed in sections 7 and 8.

**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 | Dose |
|---|---|---|
| Epoxy Resin (700<MW<=1100) | Rat - Oral - LD50 | >2000 mg/kg |
| | Rat - Dermal - LD50 | >2000 mg/kg |
| xylene | Rat - Oral - LD50 | 4.3 g/kg |
| | Rabbit - Dermal - LD50 | 1.7 g/kg |
| diiron trioxide | Rat - Oral - LD50 | 10 g/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5 mg/l [4 hours] |
| aluminium powder (stabilised) | Rat - Oral - LD50 | >15900 mg/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5 mg/l [4 hours] |
| Solvent naphtha (petroleum), heavy arom. | Rat - Oral - LD50 | >5 g/kg |
| | Rat - Inhalation - LC50 Dusts and mists | >5.2 mg/l [4 hours] |
| ethylbenzene | Rat - Oral - LD50 | 3.5 g/kg |
| | Rabbit - Dermal - LD50 | 17.8 g/kg |
| | Rat - Inhalation - LC50 Vapor | 17.8 mg/l [4 hours] |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Rat - Oral - LD50 | >6 g/kg |
| | Rabbit - Dermal - LD50 | >5000 mg/kg |
| 2-methylpropan-1-ol | Rat - Oral - LD50 | 2830 mg/kg |
| | Rabbit - Dermal - LD50 | 2460 mg/kg |

# Section 11. Toxicological information

| | | |
|---|---|---|
| 1-methoxy-2-propanol | Rat - Inhalation - LC50 Vapor | 24.6 mg/l [4 hours] |
| | Rabbit - Dermal - LD50 | 13 g/kg |
| | Rat - Oral - LD50 | 5.2 g/kg |
| Phenol, styrenated | Rat - Inhalation - LC50 Vapor | >7000 ppm [6 hours] |
| | Rabbit - Dermal - LD50 | >5010 mg/kg |
| | Rat - Oral - LD50 | 3550 mg/kg |
| naphthalene | Rat - Oral - LD50 | 490 mg/kg |
| | Rabbit - Dermal - LD50 | >20 g/kg |
| toluene | Rat - Oral - LD50 | 5580 mg/kg |
| | Rat - Inhalation - LC50 Vapor | 49 g/m³ [4 hours] |

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

**Skin corrosion/irritation**

| Product/ingredient name | Species | Dose | Score |
|---|---|---|---|
| xylene | Rabbit - Skin - Moderate irritant | Amount/concentration applied: 500 mg<br>Duration of treatment/exposure: 24 hours | - |

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

**Serious eye damage/eye irritation**

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

**Respiratory corrosion/irritation**

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

**Sensitization**

| Product/ingredient name | Species | Result |
|---|---|---|
| Phenol, styrenated | Mouse - skin<br>OECD 429 | Sensitizing |

**Skin**

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

**Respiratory**

**Conclusion/Summary** : 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.

**Classification**

| Product/ingredient name | OSHA | IARC | NTP |
|---|---|---|---|
| Talc , not containing asbestiform fibres | - | 2A | - |
| crystalline silica, non-respirable powder (>10 microns) | + | 1 | Known to be a human carcinogen. |
| xylene | - | 3 | - |
| diiron trioxide | - | 3 | - |
| ethylbenzene | - | 2B | - |
| crystalline silica, respirable powder (<10 microns) | + | 1 | Known to be a human carcinogen. |
| naphthalene | - | 2B | Reasonably anticipated to be a human carcinogen. |
| toluene | - | 3 | - |

# Section 11. Toxicological information

**Carcinogen Classification code:**
IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

## Reproductive toxicity

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

## Specific target organ toxicity (single exposure)

| Product/ingredient name | Result |
|---|---|
| Talc , not containing asbestiform fibres | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| xylene | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| Solvent naphtha (petroleum), heavy arom. | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| 2-methylpropan-1-ol | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| 1-methoxy-2-propanol | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| toluene | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |

## Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Result |
|---|---|
| ethylbenzene | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 |
| crystalline silica, respirable powder (<10 microns) | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1 |
| naphthalene | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| toluene | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 2 |

**Target organs** : Contains material which causes damage to the following organs: liver, spleen, brain, bone marrow, central nervous system (CNS), eye, lens or cornea.
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, heart, cardiovascular system, upper respiratory tract, immune system, skin, ears.

## Aspiration hazard

| Product/ingredient 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 |
| toluene | ASPIRATION HAZARD - Category 1 |

## Information on the likely routes of exposure

## Potential acute health effects

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

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

# Section 11. Toxicological information

**Skin contact** : 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
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

**Conclusion/Summary** : There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

## 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

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

**General** : Causes 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** : May cause 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.

## Numerical measures of toxicity

### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| SIGMASHIELD 680 BASE REDBROWN | 6708.1 | 2926.0 | N/A | 29.5 | 3.8 |
| Epoxy Resin (700<MW<=1100) | 2500 | 2500 | N/A | N/A | N/A |
| xylene | 4300 | 1700 | N/A | 11 | 1.5 |
| diiron trioxide | 10000 | N/A | N/A | N/A | N/A |
| ethylbenzene | 3500 | 17800 | N/A | 17.8 | 1.5 |
| 2-methylpropan-1-ol | 2830 | 2460 | N/A | 24.6 | N/A |
| 1-methoxy-2-propanol | 5200 | 13000 | N/A | N/A | N/A |
| Phenol, styrenated | 3550 | N/A | N/A | N/A | N/A |
| naphthalene | 490 | N/A | N/A | N/A | N/A |
| toluene | 5580 | N/A | N/A | 49 | N/A |

# Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species |
|---|---|---|
| diiron trioxide | Acute - EC50<br>OECD 202<br>>100 mg/l [48 hours] | Daphnia |
| Solvent naphtha (petroleum), heavy arom. | NOEL - Fresh water<br>OECD [Daphnia Magna Reproduction Test]<br>0.48 mg/l [21 days] | Daphnia |
| ethylbenzene | Acute - EC50 - Fresh water<br>1.8 mg/l [48 hours] | Daphnia |
| | Chronic - NOEC - Fresh water<br>1 mg/l | Daphnia - *Ceriodaphnia dubia* |
| 2-methylpropan-1-ol | Acute - EC50<br>1100 mg/l [48 hours] | Daphnia |
| 1-methoxy-2-propanol | Acute - LC50 - Fresh water<br>>4500 mg/l [96 hours] | Fish - Goldfish |
| | Acute - LC50<br>23300 mg/l [48 hours] | Daphnia - Daphnia |
| Phenol, styrenated | Acute - EC50 | Daphnia |

# Section 12. Ecological information

| | | |
|---|---|---|
| toluene | 3.8 mg/l [48 hours]<br>EC50<br>3.78 mg/l [48 hours]<br>LC50<br>5.5 mg/l [96 hours] | Daphnia<br><br>Fish |

**Conclusion/Summary** : Not available.

## Persistence and degradability

| Product/ingredient name | Result |
|---|---|
| ethylbenzene<br>Phenol, styrenated | 79% [10 days] - Readily<br>OECD 301F<br>7% [28 days] - Not readily |

**Conclusion/Summary** : Not available.

## 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 |
| toluene | 2.73 | 90 | Low |

## Mobility in soil

**Soil/Water partition coefficient** : Not available.

# 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.

**Disposal should be in accordance with applicable regional, national and local laws and regulations.**

## Section 13. Disposal considerations

**Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures**

## Section 14. Transport information

| | TDG | 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**

**TDG** : None identified.

**IMDG** : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.

**IATA** : None identified.

**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.

**Proof of classification statement** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

## Section 15. Regulatory information

**National Inventory List**

**Canada inventory ( DSL )** : All components are listed or exempted.

## Section 16. Other information

**Please refer to Section 2 of this document for GHS hazard classifications.**
**The customer is responsible for determining the PPE code for this material.**

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

**Organization that prepared the SDS** : EHS

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

# Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

**Indicates information that has changed from previously issued version.**

## 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.*