

# SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2015.

Date of issue/Date of revision 27 June 2024

Version 1

## Section 1. Identification

**Product name** : SIGMASHIELD 880 ALUMINUM RESIN

**Product code** : 00478147

**Other means of identification** : Not available.

**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 Architectural Coatings Canada, Inc.  
1550, rue Ampère, bureau 500  
Boucherville (Québec) J4B 7L4  
Canada  
+1 450-655-3121

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  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1A  
CARCINOGENICITY - 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

## Section 2. Hazard identification

This product contains TiO<sub>2</sub> which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO<sub>2</sub> is utilized as a raw material in a liquid coating formulation. In this case, the TiO<sub>2</sub> particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO<sub>2</sub> when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger

#### Hazard statements

: Flammable liquid and vapor.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause respiratory irritation.  
Suspected of causing cancer.  
Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))  
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 ON SKIN: Wash with plenty of 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. 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. 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: 27.7% (oral), 59.6% (dermal), 48.9% (inhalation)

### Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: SIGMASHIELD 880 ALUMINUM RESIN
Other means of identification	: Not available.

#### CAS number/other identifiers

Ingredient name	Synonyms	% (w/w)	CAS number
bis-[4-(2,3-epoxipropoxy)phenyl]propane	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-; Bisphenol A diglycidyl ether; Bisphenol A, diglycidyl ether; Bis-[4-(2,3-epoxypropoxy)phenyl]propane; 2,2-bis[4-(2,3-epoxypropoxy)phenyl]propane; Propane, 2,2-bis(p-(2,3-epoxypropoxy)phenyl)-; diglycidyl ether of bisphenol-A; 2,2-bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether; Araldite; DIPHENYLOL PROPANE DIGLYCIDYL ETHER	10 - 30*	1675-54-3
Talc , not containing asbestiform fibres	Talc; magnesium silicate monohydrate (talc) not containing asbestiform fibres	10 - 30*	14807-96-6
aluminium powder (stabilised)	aluminium powder (stabilised)	3 - 7*	7429-90-5
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)	1 - 5*	25036-25-3
xylene	Benzene, dimethyl-; Xylol; Benzene, dimethyl-, mixed isomers; xylene, mixed isomers, pure; xylene, crude; Benzene, dimethyl-,; Xylene (mixed); xylene (total); Xylenes; Dimethylbenzene; XYLENES (Isomer Mixture)	1 - 5*	1330-20-7
Phenol, isobutylenated methylstyrenated	Phenol, isobutylenated, methylstyrenated; ISOBUTYLENATED METHYLSTYRENATED PHENOL	1 - 5*	68457-74-9
Stoddard solvent	Low boiling point naphtha - unspecified; Low aromatic hydrocarbon solvents - medium flashpoint.; Spotting naphtha; Petroleum solvent; Mineral spirits; Dry cleaning safety solvent; Petroleum distillates; White spirits; Stoddard solvent.; White Spirit	1 - 5*	8052-41-3
2-methylpropan-1-ol	iso-butanol; 1-Propanol, 2-methyl-; Isobutyl alcohol; Isobutanol; 2-Methyl-1-propanol; Isopropylcarbinol; IBA; i-Butyl alcohol; isobutanol; iso-butanol; Isobutyl	1 - 5*	78-83-1

## Section 3. Composition/information on ingredients

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	alcohol (I,T); 1-Propanol, 2-methyl- (I,T) Oxirane, 2-[(C12-14-alkyloxy)methyl] derivs.; Alkyl (C12-C14) Glycidyl Ether; Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives; (C12-14) Alkylglycidyl ether; Oxirane, mono((C12-14-alkyloxy)methyl) derivatives; Alkyl -C12-14-glycidyl ether; oxirane, mono[(C12-14-alkyloxy)methyl] derivs; Oxirane, mono-[(C12-14-alkyloxy)methyl] derivs.; Alkyl (C12, C14) glycidyl ether; Alkyl(C8-18) glycidyl ether; Oxirane, mono[(alkyl(C=12-14)oxy)methyl] derivs.	1 - 5*	68609-97-2
titanium dioxide	Titanium oxide; Titanium oxide (TiO <sub>2</sub> ); CI 77891; Titanium peroxide; Rutile; C.I. Pigment White 6; titanium dioxide coated with isopropoxytitanium triisostearate, containing by weight 1,5 % or more but not more than 2,5 % of isopropoxytitanium triisostearate; glass flakes (CAS RN 65997-17-3): — of a thickness of 0,3 µm or more but not more than 10 µm, and — coated with titanium dioxide (CAS RN 13463-67-7) or iron oxide (CAS RN 18282- 10-5); titanium dioxide, other than those of heading 3206 11 00; C.I. 77891; E 171; titanium(IV) oxide, other than those of heading 3206 11 00	0.5 - 1.5*	13463-67-7
ethylbenzene	Benzene, ethyl-; Phenylethane; Ethylbenzol; photosensitive emulsion consisting of cyclized polyisoprene containing: — 55 % or more but not more than 75 % by weight of xylene (CAS RN 1330-20-7) and — 12 % or more but not more than 18 % by weight of ethylbenzene (CAS RN 100-41-4); EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropyl)oxycarbonyl or chloropropyl)oxycarbonyl) benzene	0.1 - 1*	100-41-4

\*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 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** : 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
- 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.

### 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. 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<sub>2</sub>, 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  
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. 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 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

## Section 6. Accidental release measures

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. 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 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

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
bis-[4-(2,3-epoxipropoxy)phenyl]propane Talc , not containing asbestiform fibres	None. <b>CA British Columbia Provincial (Canada, 8/2023).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable <b>CA Quebec Provincial (Canada, 7/2023).</b> TWAEV: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable dust. <b>CA Alberta Provincial (Canada, 3/2023).</b> OEL: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable particulate <b>CA Ontario Provincial (Canada, 6/2019).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable particulate matter. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: respirable fraction
aluminium powder (stabilised)	<b>CA Alberta Provincial (Canada, 3/2023). Skin sensitizer.</b> OEL: 10 mg/m <sup>3</sup> , ( ) 8 hours. Form: Metal Dust <b>CA Saskatchewan Provincial (Canada, 7/2013). [Aluminum pyro powders and metal dust]</b> STEL: 20 mg/m <sup>3</sup> , (measured as Al) 15 minutes. Form: Metal dust TWA: 10 mg/m <sup>3</sup> , (measured as Al) 8 hours. Form: Metal dust STEL: 10 mg/m <sup>3</sup> , (measured as Al) 15 minutes. Form: Pyro powder TWA: 5 mg/m <sup>3</sup> , (measured as Al) 8 hours. Form: Pyro powder <b>CA British Columbia Provincial (Canada, 8/2023). [Aluminum metal and insoluble compounds]</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Respirable <b>CA Quebec Provincial (Canada, 7/2023). [aluminum and its compounds]</b> TWAEV: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable dust. <b>CA Ontario Provincial (Canada, 6/2019). [Aluminum metal and insoluble compounds]</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Respirable particulate matter.
Epoxy Resin (700<MW<=1100) xylene	None. <b>CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene]</b> OEL: 651 mg/m <sup>3</sup> 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m <sup>3</sup> 8 hours. OEL: 100 ppm 8 hours. <b>CA British Columbia Provincial (Canada,</b>



## Section 8. Exposure controls/personal protection

Phenol, isobutyleneated methylstyrenated  
Stoddard solvent

8/2023). [Xylene (o, m & p isomers)]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Quebec Provincial (Canada, 7/2023).

[Xylene]

STEV: 651 mg/m<sup>3</sup> 15 minutes.

STEV: 150 ppm 15 minutes.

TWAEV: 434 mg/m<sup>3</sup> 8 hours.

TWAEV: 100 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

[Xylene (o-, m-, p-isomers)]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Saskatchewan Provincial (Canada,

7/2013). [Xylene]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

None.

CA Alberta Provincial (Canada, 3/2023).

OEL: 572 mg/m<sup>3</sup> 8 hours.

OEL: 100 ppm 8 hours.

CA British Columbia Provincial (Canada,  
8/2023).

STEL: 580 mg/m<sup>3</sup> 15 minutes.

TWA: 290 mg/m<sup>3</sup> 8 hours.

CA Quebec Provincial (Canada, 7/2023).

TWAEV: 525 mg/m<sup>3</sup> 8 hours.

TWAEV: 100 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 100 ppm 8 hours.

CA Saskatchewan Provincial (Canada,  
7/2013).

STEL: 125 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Alberta Provincial (Canada, 3/2023).

Skin sensitizer.

OEL: 152 mg/m<sup>3</sup> 8 hours.

OEL: 50 ppm 8 hours.

CA British Columbia Provincial (Canada,  
8/2023).

TWA: 50 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 50 ppm 8 hours.

CA Quebec Provincial (Canada, 7/2023).

TWAEV: 152 mg/m<sup>3</sup> 8 hours.

TWAEV: 50 ppm 8 hours.

CA Saskatchewan Provincial (Canada,  
7/2013).

STEL: 60 ppm 15 minutes.

TWA: 50 ppm 8 hours.

None.

CA British Columbia Provincial (Canada,  
8/2023).

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust

TWA: 3 mg/m<sup>3</sup> 8 hours. Form: respirable

2-methylpropan-1-ol

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.  
titanium dioxide

## Section 8. Exposure controls/personal protection

ethylbenzene

fraction

**CA Quebec Provincial (Canada, 7/2023).**TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust.**CA Alberta Provincial (Canada, 3/2023).****Skin sensitizer.**OEL: 10 mg/m<sup>3</sup> 8 hours.**CA Saskatchewan Provincial (Canada, 7/2013).**STEL: 20 mg/m<sup>3</sup> 15 minutes.TWA: 10 mg/m<sup>3</sup> 8 hours.**CA Ontario Provincial (Canada, 6/2019).**TWA: 10 mg/m<sup>3</sup> 8 hours. Form: total dust**CA Alberta Provincial (Canada, 3/2023).**OEL: 543 mg/m<sup>3</sup> 15 minutes.

OEL: 125 ppm 15 minutes.

OEL: 434 mg/m<sup>3</sup> 8 hours.

OEL: 100 ppm 8 hours.

**CA British Columbia Provincial (Canada, 8/2023).**

TWA: 20 ppm 8 hours.

**CA Ontario Provincial (Canada, 6/2019).**

TWA: 20 ppm 8 hours.

**CA Quebec Provincial (Canada, 7/2023).**

TWA: 20 ppm 8 hours.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 125 ppm 15 minutes.

TWA: 100 ppm 8 hours.

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.

## Section 8. Exposure controls/personal protection

- 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
- 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** : Yellowish-brown.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 37°C (98.6°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.64
- Density ( lbs / gal )** : 13.69

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

## Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm <sup>2</sup> /s (>21 cSt)
Volatility	: 22% (v/v), 10.966% (w/w)
% Solid. (w/w)	: 89.034

## 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 halogenated compounds metal oxide/oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
aluminium powder (stabilised)	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	>15900 mg/kg	-
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	-
	LC50 Inhalation Dusts and mists	Rat	>23250 mg/m <sup>3</sup>	4 hours
Phenol, isobutyleneated methylstyrenated	LD50 Dermal	Rabbit	>20000 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
Stoddard solvent 2-methylpropan-1-ol	LD50 Oral	Rat	>5 g/kg	-
	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
oxirane, mono[(C12-14-alkyloxy)methyl]	LD50 Oral	Rat	2830 mg/kg	-
	LD50 Oral	Rat	17100 mg/kg	-

**Section 11. Toxicological information**

derivs. titanium dioxide	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat Rabbit Rat	>6.82 mg/l >5000 mg/kg >5000 mg/kg	4 hours - -
ethylbenzene	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rat Rabbit Rat	17.8 mg/l 17.8 g/kg 3.5 g/kg	4 hours - -

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

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Eyes - Redness of the conjunctivae	Rabbit	0.4	24 hours	-
	Skin - Edema	Rabbit	0.5	4 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
xylene	Skin - Mild irritant	Rabbit	-	4 hours	-
	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
bis-[4-(2,3-epoxipropoxy)phenyl]propane	skin	Mouse	Sensitizing
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	skin	Guinea pig	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.

**Classification**

Product/ingredient name	OSHA	IARC	NTP
bis-[4-(2,3-epoxipropoxy)phenyl]propane	-	3	-
xylene	-	3	-
titanium dioxide	-	2B	-
ethylbenzene	-	2B	-

**Carcinogen Classification code:**

## Section 11. Toxicological information

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.

### 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
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Stoddard solvent	Category 1	-	central nervous system (CNS)
ethylbenzene	Category 2	-	hearing organs

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

### Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
Stoddard solvent	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

### Information on the likely routes of exposure

#### Potential acute health effects

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

**Inhalation** : 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

## Section 11. Toxicological information

- 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

- Conclusion/Summary** : There are no data available on the mixture itself. This product contains TiO<sub>2</sub> which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO<sub>2</sub> is utilized as a raw material in a liquid coating formulation. In this case, the TiO<sub>2</sub> particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO<sub>2</sub> when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). 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

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

## Section 11. Toxicological information

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

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

### 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 880 ALUMINUM RESIN	14131.7	5971.5	N/A	129.9	17.7
bis-[4-(2,3-epoxipropoxy)phenyl]propane	15000	23000	N/A	N/A	N/A
Epoxy Resin (700<MW<=1100)	2500	2500	N/A	N/A	N/A
xylene	4300	1700	N/A	11	1.5
Phenol, isobutyleneated methylstyrenated	2500	2500	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	17100	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - <i>daphnia magna</i>	48 hours
2-methylpropan-1-ol oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Chronic NOEC 0.3 mg/l	Daphnia	21 days
	Acute EC50 1100 mg/l	Daphnia	48 hours
	LC50 >100 mg/l	Fish	96 hours
titanium dioxide ethylbenzene	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>	-

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis-[4-(2,3-epoxipropoxy)phenyl]propane	-	-	Not readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily

### Bioaccumulative potential



## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
Stoddard solvent	3.16 to 7.06	-	High
2-methylpropan-1-ol	1	-	Low
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	3.77	-	Low
ethylbenzene	3.6	79.43	Low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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.

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 Marine pollutant substances	No. Not applicable.	No. Not applicable.	No. Not applicable.

### Additional information

## Section 14. Transport information

**TDG** : None identified.  
**IMDG** : None identified.  
**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.

**Transport in bulk according to IMO instruments** : Not applicable.

**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 )** : At least one component is not listed.

## Section 16. Other information

### **Hazardous Material Information System (U.S.A.)**

**Health** : 3 \* **Flammability** : 3 **Physical hazards** : 1

( \* ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### **National Fire Protection Association (U.S.A.)**

**Health** : 3 **Flammability** : 3 **Instability** : 1

**Date of issue/Date of revision** : 27 June 2024

**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  
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

## Section 16. Other information

*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.*