

# SAFETY DATA SHEET



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

Date of issue/Date of revision 9 January 2019

Version 4

## Section 1. Identification

**Product name** : SIGMASHIELD 1090 BASE RAL 7030  
**Product code** : 00155300  
**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 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)  
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

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

## Section 2. Hazard identification

**Classification of the substance or mixture** : ACUTE TOXICITY (inhalation) - Category 4  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 2  
CARCINOGENICITY - Category 1

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 PPG 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

## Section 2. Hazard identification

personal protective equipment and/or engineering controls (see Section 8).

### GHS label elements

#### Hazard pictograms

:



#### Signal word

: Danger

#### Hazard statements

: Harmful if inhaled.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause cancer.  
Suspected of causing genetic defects.

### Precautionary statements

#### Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical 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 attention.

#### Storage

: Store locked up.

#### 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. Emits toxic fumes when heated.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 77.8% (Oral), 77.8% (Dermal), 96.5% (Inhalation)

## Section 3. Composition/information on ingredients

#### Substance/mixture

: Mixture

#### Product name

: SIGMASHIELD 1090 BASE RAL 7030

#### Other means of identification

: Not available.

### CAS number/other identifiers

### Section 3. Composition/information on ingredients

| Ingredient name                                     | Synonyms       | % (w/w)  | CAS number |
|---|----------------|----------|------------|
| crystalline silica, respirable powder (>10 microns) | Not available. | 60 - 80* | 14808-60-7 |
| Epoxy resin (MW ≤ 700)                              | Not available. | 10 - 30* | 25068-38-6 |
| 2,3-epoxypropyl neodecanoate                        | Not available. | 1 - 5*   | 26761-45-5 |
| benzyl alcohol                                      | Not available. | 1 - 5*   | 100-51-6   |
| titanium dioxide                                    | Not available. | 0.1 - 1* | 13463-67-7 |

\*Any concentration shown as a range is to protect confidentiality.

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.
- Skin contact** : Causes skin irritation. 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** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- 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.

## Section 4. First-aid measures

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

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- 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.

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

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor 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. 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.

## Section 6. Accidental release measures

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

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

| Ingredient name   | Exposure limits  |
|---|--|
| crystalline silica, respirable powder (>10 microns)<br><br><br><br><br><br><br><br>Epoxy resin (MW ≤ 700)<br>2,3-epoxypropyl neodecanoate<br>benzyl alcohol | <b>CA British Columbia Provincial (Canada, 6/2017).</b><br>TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable<br><b>CA Ontario Provincial (Canada, 1/2018).</b><br>TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Respirable<br><b>CA Quebec Provincial (Canada, 1/2014).</b><br>TWAEV: 0.1 mg/m <sup>3</sup> 8 hours. Form: Respirable dust.<br><b>CA Alberta Provincial (Canada, 4/2009).</b><br>8 hrs OEL: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable particulate<br><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br>TWA: 0.05 mg/m <sup>3</sup> 8 hours. Form: respirable fraction<br><br>None.<br>None.<br><b>IPEL (PPG).</b><br>TWA: 10 ppm<br>STEL: 50 ppm |
| titanium dioxide  | <b>CA British Columbia Provincial (Canada, 6/2017).</b><br>TWA: 3 mg/m <sup>3</sup> 8 hours. Form: Respirable dust<br>TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust<br><b>CA Quebec Provincial (Canada, 1/2014).</b><br>TWAEV: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust.<br><b>CA Alberta Provincial (Canada, 4/2009).</b><br><b>Skin sensitizer.</b><br>8 hrs OEL: 10 mg/m <sup>3</sup> 8 hours.<br><b>CA Ontario Provincial (Canada, 1/2018).</b><br>TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total dust<br><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br>STEL: 20 mg/m <sup>3</sup> 15 minutes.<br>TWA: 10 mg/m <sup>3</sup> 8 hours.                  |

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

## Section 8. Exposure controls/personal protection

**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

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

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

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.

**Color** : Gray.

**Odor** : Aromatic.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : Not available.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: Not applicable.

**Material supports combustion.** : Yes.

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

**Decomposition temperature** : Not available.

## Section 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Flammability (solid, gas)</b>                    | : Not available.   |
| <b>Lower and upper explosive (flammable) limits</b> | : Not available.   |
| <b>Evaporation rate</b>                             | : Not available.   |
| <b>Vapor pressure</b>                               | : Not available.   |
| <b>Vapor density</b>                                | : Not available.   |
| <b>Relative density</b>                             | : 2.04   |
| <b>Density ( lbs / gal )</b>                        | : 17.02  |
| <b>Solubility</b>                                   | : Insoluble in the following materials: cold water.            |
| <b>Partition coefficient: n-octanol/water</b>       | : Not available.   |
| <b>Viscosity</b>                                    | : Kinematic (40°C (104°F)): >0.21 cm <sup>2</sup> /s (>21 cSt) |
| <b>Volatility</b>                                   | : 5% (v/v), 4.722% (w/w)                                       |
| <b>% Solid. (w/w)</b>                               | : 95.278   |

## Section 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>Chemical stability</b>                 | : The product is stable.  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <b>Conditions to avoid</b>                | : When exposed to high temperatures may produce hazardous decomposition products.<br>Refer to protective measures listed in sections 7 and 8. |
| <b>Incompatible materials</b>             | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.              |
| <b>Hazardous decomposition products</b>   | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.                     |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name      | Result                          | Species | Dose                    | Exposure |
|------------------------------|---------------------------------|---------|-------------------------|----------|
| Epoxy resin (MW ≤ 700)       | LD50 Dermal                     | Rabbit  | >2 g/kg                 | -        |
|                              | LD50 Oral                       | Rat     | >2 g/kg                 | -        |
| 2,3-epoxypropyl neodecanoate | LD50 Dermal                     | Rat     | 3800 mg/kg              | -        |
|                              | LD50 Oral                       | Rat     | 9.6 g/kg                | -        |
| benzyl alcohol               | LC50 Inhalation Dusts and mists | Rat     | >4178 mg/m <sup>3</sup> | 4 hours  |
|                              | LD50 Dermal                     | Rabbit  | 2000 mg/kg              | -        |
| titanium dioxide             | LD50 Oral                       | Rat     | 1.23 g/kg               | -        |
|                              | LC50 Inhalation Dusts and mists | Rat     | >6.82 mg/l              | 4 hours  |
|                              | LD50 Dermal                     | Rabbit  | >5000 mg/kg             | -        |



**Section 11. Toxicological information**

|  |           |     |             |   |
|--|-----------|-----|-------------|---|
|  | LD50 Oral | Rat | >5000 mg/kg | - |
|--|-----------|-----|-------------|---|

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

**Irritation/Corrosion**

| Product/ingredient name | Result               | Species | Score | Exposure | Observation |
|-------------------------|----------------------|---------|-------|----------|-------------|
| Epoxy resin (MW ≤ 700)  | Skin - Mild irritant | Rabbit  | -     | -        | -           |
|                         | Eyes - Mild irritant | Rabbit  | -     | -        | -           |

**Conclusion/Summary**

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

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

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

**Sensitization**

| Product/ingredient name | Route of exposure | Species | Result      |
|-------------------------|-------------------|---------|-------------|
| Epoxy resin (MW ≤ 700)  | 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.

**Classification**

| Product/ingredient name                             | OSHA | IARC | NTP                             |
|---|------|------|---------------------------------|
| crystalline silica, respirable powder (>10 microns) | -    | 1    | Known to be a human carcinogen. |
| titanium dioxide                                    | -    | 2B   | -                               |

**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.

**Teratogenicity**

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

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

Not available.

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

Not available.

**Target organs**

: Contains material which causes damage to the following organs: blood, kidneys, liver, heart, spleen, brain, bone marrow, central nervous system (CNS).  
Contains material which may cause damage to the following organs: lungs, upper respiratory tract, immune system, skin, eyes.

**Aspiration hazard**

## Section 11. Toxicological information

Not available.

### Information on the likely routes of exposure

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. 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** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- 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 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. 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 PPG 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.

## Section 11. Toxicological information

### Long term exposure

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

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

### Potential chronic health effects

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : Suspected of causing genetic defects.

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

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

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

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route   | ATE value     |
|---|---------------|
| <input checked="" type="checkbox"/> Oral              | 14918.7 mg/kg |
| <input type="checkbox"/> Dermal                       | 13280.5 mg/kg |
| <input type="checkbox"/> Inhalation (dusts and mists) | 2.881 mg/l    |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name                                    | Result                           | Species                    | Exposure |
|--|----------------------------------|----------------------------|----------|
| <input checked="" type="checkbox"/> epoxy resin (MW ≤ 700) | Chronic NOEC 0.3 mg/l            | Daphnia                    | 21 days  |
| 2,3-epoxypropyl neodecanoate                               | Acute EC50 3.5 mg/l              | Algae                      | 96 hours |
| titanium dioxide   | Acute EC50 4.8 mg/l              | Daphnia - Daphnia magna    | 48 hours |
|  | Acute LC50 9.6 mg/l              | Fish - Oncorhynchus mykiss | 96 hours |
|  | Acute LC50 >100 mg/l Fresh water | Daphnia - Daphnia magna    | 48 hours |

### Persistence and degradability

| Product/ingredient name | Test      | Result        | Dose | Inoculum |
|-------------------------|-----------|---------------|------|----------|
| Epoxy resin (MW ≤ 700)  | OECD 301F | 5 % - 28 days | -    | -        |

| Product/ingredient name                                    | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| <input checked="" type="checkbox"/> epoxy resin (MW ≤ 700) | -                 | -          | Not readily      |
| 2,3-epoxypropyl neodecanoate                               | -                 | -          | Not readily      |
| benzyl alcohol   | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name                                    | LogP <sub>ow</sub> | BCF | Potential |
|--|--------------------|-----|-----------|
| <input checked="" type="checkbox"/> epoxy resin (MW ≤ 700) | 3                  | 31  | low       |
| 2,3-epoxypropyl neodecanoate                               | 4.4                | -   | high      |
| benzyl alcohol   | 1.1                | -   | low       |

## Section 12. Ecological information

### Mobility in soil

Soil/water partition coefficient ( $K_{oc}$ ) : 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. 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                   | Not regulated.  | Not regulated.  | Not regulated.  |
| UN proper shipping name     | -               | -               | -               |
| Transport hazard class(es)  | -               | -               | -               |
| Packing group               | -               | -               | -               |
| Environmental hazards       | No.             | No.             | No.             |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

### Additional 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.

## Section 15. Regulatory information

Canada inventory ( DSL ) : Not determined.

## Section 16. Other information

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

Health : 3 \* Flammability : 0 Physical hazards : 0

(\* ) - 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 : 0 Instability : 0

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Organization that prepared the MSDS : 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)  
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.