

SAFETY DATA SHEET



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

Date of issue/Date of revision 5 March 2025

Version 3.03

Section 1. Identification

Product name : NOVAGUARD 5041 GF GRAY - A

Product code : 00462668

Other means of identification : Not available.

Product type : Liquid.

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

Product use : Industrial applications, 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 : SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1B
CARCINOGENICITY - Category 1A

This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ 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

Section 2. Hazard identification

Hazard pictograms

:

**Signal word**

: Danger

Hazard statements

: Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause cancer.

Precautionary statements**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid breathing vapor. 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 ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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. Emits toxic fumes when heated.

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 41.6% (oral), 92.4% (dermal), 78.2% (inhalation)

Other hazards which do not result in classification

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: NOVAGUARD 5041 GF GRAY - A

Other means of identification

: Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	Synonyms	% (w/w)	CAS number
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol; Formaldehyde, polymer with (chloromethyl)oxirane and phenol; Phenol, formaldehyde, (chloromethyl)oxirane polymer; epichlorohydrin-phenolformaldehyde resin; Phenolic epoxy resin F-44; Polymer of 2-(chloromethyl)oxirane / formaldehyde / phenol; Glycidyl ether modification products with epichlorohydrin or 2-methylepichlorohydrin of {polycondensation products of [(polycondensation products of phenol / formaldehyde) or alkyl(C1-9)phenol] / formaldehyde}; Formaldehyde polymer with (chloromethyl)oxirane and phenol; POLYMER, FORMALDEHYDE WITH (CHLOROMETHYL)OXIRANE AND PHENOL; Epichlorohydrin-bisphenol F resin	30 - 60*	9003-36-5
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)		15 - 40	28064-14-4
Mica-group minerals	Mica group minerals; Dimonite; mica; Micatex; Minerals, mica group; Silicate, mica; Silicates (less than 1 % crystalline silica) Mica; Silicates, Mica; Zimwaldite; Roscoelite; Phlogopite	7 - 13*	12001-26-2
titanium dioxide	Titanium oxide; Titanium oxide (TiO ₂); 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	5 - 10*	13463-67-7
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Oxirane, 2-[[3-(trimethoxysilyl)propoxy]methyl]-; Silane, trimethoxy[3-(oxiranylmethoxy)propyl]-; 3-(2,3-Epoxypropoxy)propyltrimethoxysilane; (3-(2,3-Epoxypropoxy)propyl)trimethoxysilane; mixture consisting of: — 64 % or more, but not more than 74 % by	1 - 5*	2530-83-8

Section 3. Composition/information on ingredients

crystalline silica, respirable powder (<10 microns)	weight of amorphous silica (CAS RN 7631-86-9) — 25 % or more, but not more than 35 % by weight of butanone (CAS RN 78-93-3) and — not more than 1 % by weight of 3-(2,3-epoxypropoxy) propyltrimethoxysilane (CAS RN 2530-83-8); Silane, 3-(2,3-epoxypropoxy) propyltrimethoxy-; Trimethoxy[3-(oxiran-2-ylmethoxy)propyl]silane; Trimethoxy{3-[(oxiran-2-yl)methoxy]propyl}silane; 2,3-Epoxy propoxy propyltrimethoxysilane; Coupling agent KH-560; Coupler KH-560 alpha-quartz; Silica, crystalline (quartz); Silica, Crystalline Quartz; SILICA, CRYSTALLINE, QUARTZ; Silica-Crystalline, Quartz; Silica - Crystalline Quartz; Silica-Crystalline : Quartz; Silica, crystalline - quartz	0.1 - 1*	14808-60-7
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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.

SUB codes represent substances without registered CAS Numbers.

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** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- 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 damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Section 4. First-aid measures

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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 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
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.
- 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. Do not breathe 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.
- 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 breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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.

Section 7. Handling and storage

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 : Do not store above the following temperature: 50°C (122°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

Ingredient name	Exposure limits
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Phenol, polymer with formaldehyde, glycidyl ether (MW≤700) Mica-group minerals	None. None. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 3 mg/m ³ . Form: Respirable. CA British Columbia Provincial (Canada, 4/2024) TWA 8 hours: 3 mg/m ³ . Form: Respirable. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 3 mg/m ³ . Form: Respirable particulate matter.. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 0.1 mg/m ³ . Form: respirable aerosol fraction. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 6 mg/m ³ . Form: respirable fraction. TWA 8 hours: 3 mg/m ³ . Form: respirable fraction.
titanium dioxide	CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 10 mg/m ³ . CA British Columbia Provincial (Canada, 4/2024) TWA 8 hours: 10 mg/m ³ . Form: Total dust. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 10 mg/m ³ . CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 10 mg/m ³ . Form: total particulate matter. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 20 mg/m ³ . TWA 8 hours: 10 mg/m ³ .
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	None.

Section 8. Exposure controls/personal protection

crystalline silica, respirable powder (<10 microns)

CA Alberta Provincial (Canada, 3/2023)

OEL 8 hours: 0.025 mg/m³. Form: Respirable particulate.

CA British Columbia Provincial (Canada, 4/2024) [silica, crystalline - alpha quartz and cristobalite]

TWA 8 hours: 0.025 mg/m³. Form: Respirable.

CA Ontario Provincial (Canada, 6/2019) [Silica, Crystalline (Quartz/Tripoli)]

TWA 8 hours: 0.1 mg/m³. Form: Respirable particulate matter..

CA Quebec Provincial (Canada, 2/2024) [Silica Crystalline -Quartz]

TWAEV 8 hours: 0.1 mg/m³. Form: respirable aerosol fraction.

CA Saskatchewan Provincial (Canada, 4/2021)

TWA 8 hours: 0.05 mg/m³. Form: respirable fraction.

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 : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- 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** : Grayish-white.
- Odor** : Characteristic.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 251.67°C (485°F) [Product does not sustain combustion.]
- 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** : 1.33
- Density (lbs / gal)** : 11.1

Solubility(ies)	Media	Result
	cold water	Not soluble

- Partition coefficient: n-octanol/water** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
- % Solid. (w/w)** : 100

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 halogenated compounds Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Dose
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol titanium dioxide	Rat - Oral - LD50	>10000 mg/kg
	Rat - Oral - LD50	>5000 mg/kg
	Rabbit - Dermal - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>6.82 mg/l [4 hours]
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Rat - Oral - LD50	7.01 g/kg
	Rat - Inhalation - LC50 Dusts and mists	>5.3 mg/l [4 hours]

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

Skin corrosion/irritation

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

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

Section 11. Toxicological information

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

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 (repeated exposure)

Product/ingredient name	Result
crystalline silica, respirable powder (<10 microns)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1

Target organs : Contains material which may cause damage to the following organs: lungs, upper respiratory tract, eyes.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
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
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
Ingestion : Adverse symptoms may include the following:
 stomach pains

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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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. This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a

Section 11. Toxicological information

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). 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

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

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 : 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)
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	7010	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol titanium dioxide	Acute - LC50 2.54 mg/l [96 hours]	Fish
	Acute - LC50 - Fresh water >100 mg/l [48 hours]	Daphnia - <i>Daphnia magna</i>
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Acute - EC50 - Fresh water 255 mg/l [72 hours]	Algae
	Acute - EC50 473 mg/l [48 hours]	Daphnia
	Acute - LC50 55 mg/l [96 hours]	Fish

Conclusion/Summary : Not available.

Section 12. Ecological information

Persistence and degradability

Product/ingredient name	Result
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	37% [28 days] - Not readily

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	-	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. 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	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin, Phenol, polymer with formaldehyde, glycidyl ether (MW<=700))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin, Phenol, polymer with formaldehyde, glycidyl ether (MW<=700))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin, Phenol, polymer with formaldehyde, glycidyl ether (MW<=700))
Transport hazard class(es)	9	9	9

Section 14. Transport information

Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Marine pollutant substances	(Epoxy Resin)	(Epoxy Resin)	Not applicable.

- Additional information
- TDG

: Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.
- IMDG

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

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user

: **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Proof of classification statement

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).

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

5 March 2025
- 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.