

# SAFETY DATA SHEET



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

Date of issue/Date of revision 20 June 2024

Version 3

## Section 1. Identification

**Product name** : NOVAGUARD 5041 YELLOW - A  
**Product code** : 00462658  
**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** : ACUTE TOXICITY (inhalation) - Category 4  
SKIN IRRITATION - Category 2  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITIZATION - Category 1B  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - 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

: Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Harmful if inhaled.  
Suspected of causing cancer.  
May damage fertility or the unborn child.  
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. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. 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. 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

: Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.  
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 24.2% (oral), 73.4% (dermal), 80.5% (inhalation)

### Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: NOVAGUARD 5041 YELLOW - A
Other means of identification	: Not available.

#### CAS number/other identifiers

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	15 - 40	9003-36-5
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)		10 - 30*	28064-14-4
Epoxy resin (MW ≤ 700)	reaction product : bisphenol a-(epichlorhydrin) ; epoxy resin ( number average molecular weight <= 700)	7 - 13*	25068-38-6
benzyl alcohol	Benzenemethanol; .alpha.-Hydroxytoluene; Phenylcarbinol; Phenylmethanol; E 1519; α-hydroxytoluene; Phenylmethyl alcohol; toluenol, alpha-; (hydroxymethyl)benzene; BENZENECARBINOL; alpha-Hydroxytoluene	5 - 10*	100-51-6
Talc , not containing asbestiform fibres	Talc; magnesium silicate monohydrate (talc) not containing asbestiform fibres	3 - 7*	14807-96-6
tetrahydro-2-furylmethanol	tetrahydro-2-furyl-methanol; tetrahydrofurfuryl alcohol; 2-Furanmethanol, tetrahydro-; 2-TETRAHYDROFURANMETHANOL; 2-(HYDROXYMETHYL) TETRAHYDROFURAN; Tetrahydro-2-furanylmethanol; THFA; Tetrahydro-2-furancarbinol; Tetrahydro-	1 - 5*	97-99-4

## Section 3. Composition/information on ingredients

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2-furanmethanol; FURFURYL ALCOHOL, TETRAHYDRO-; 2-Hydroxymethyl oxolane  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 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-; 2,3-Epoxy propoxy propyltrimethoxysilane; Coupling agent KH-560; Coupler KH-560; 2-[[3-(Trimethoxysilyl)propoxy]methyl]oxirane; (Glycidylalkyl)trialkoxysilane [alkyl (C1-3),alkoxy (C1-2)]	1 - 5*	2530-83-8
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	0.1 - 1*	13463-67-7

\*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** : Harmful if inhaled.
- 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  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## 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  
nitrogen 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

## Section 6. Accidental release measures

- 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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.  
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) Epoxy resin (MW ≤ 700) benzyl alcohol	None. None. None. <b>IPEL (-).</b> TWA: 5 ppm STEL: 10 ppm
Talc , not containing asbestiform fibres	<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 None. None. <b>CA British Columbia Provincial (Canada, 8/2023).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust TWA: 3 mg/m <sup>3</sup> 8 hours. Form: respirable fraction <b>CA Quebec Provincial (Canada, 7/2023).</b> TWAEV: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust. <b>CA Alberta Provincial (Canada, 3/2023).</b> <b>Skin sensitizer.</b> OEL: 10 mg/m <sup>3</sup> 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 20 mg/m <sup>3</sup> 15 minutes. TWA: 10 mg/m <sup>3</sup> 8 hours. <b>CA Ontario Provincial (Canada, 6/2019).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total dust
tetrahydro-2-furylmethanol [3-(2,3-epoxypropoxy)propyl]trimethoxysilane titanium dioxide	

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.



## Section 8. Exposure controls/personal protection

- 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.
- 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
- 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** : Yellow.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- 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.

## Section 9. Physical and chemical properties

**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** : 1.2

**Density ( lbs / gal )** : 10.01

**Solubility(ies)** :

Media	Result
cold water	Not soluble

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

**Viscosity** : Kinematic (40°C (104°F)): >21 mm<sup>2</sup>/s (>21 cSt)

**Volatility** : 13% (v/v), 11.633% (w/w)

**% Solid. (w/w)** : 88.367

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.  
Refer to protective measures listed in sections 7 and 8.

**Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds Formaldehyde. metal oxide/oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	LD50 Oral	Rat	>10000 mg/kg	-
Epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
benzyl alcohol	LD50 Oral	Rat	>2 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
tetrahydro-2-furylmethanol	LC50 Inhalation Vapor	Rat	19630 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	1.22 g/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5.3 mg/l	4 hours
titanium dioxide	LD50 Oral	Rat	7.01 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	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)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - 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
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

## Section 11. Toxicological information

**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

### Specific target organ toxicity (repeated exposure)

Not available.

### Target organs

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

### Aspiration hazard

Not available.

## Information on the likely routes of exposure

### Potential acute health effects

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

**Inhalation** : Harmful if inhaled.

**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  
watering  
redness

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

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

## Section 11. Toxicological information

**Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

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

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

**Reproductive toxicity** : May damage fertility or the unborn child.

### Numerical measures of toxicity

## Section 11. Toxicological information

### 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)
NOVAGUARD 5041 YELLOW - A	5979.5	2357.2	N/A	90.4	4.1
Epoxy resin (MW ≤ 700)	2500	2500	N/A	N/A	N/A
benzyl alcohol	1230	2000	N/A	N/A	1.5
tetrahydro-2-furylmethanol	1600	1220	N/A	19.63	N/A
[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	Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Acute LC50 2.54 mg/l	Fish	96 hours
Epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l Chronic NOEC 0.3 mg/l	Daphnia Daphnia	48 hours 21 days
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Acute EC50 255 mg/l Fresh water	Algae	72 hours
titanium dioxide	Acute EC50 473 mg/l Acute LC50 55 mg/l Acute LC50 >100 mg/l Fresh water	Daphnia Fish Daphnia - <i>Daphnia magna</i>	48 hours 96 hours 48 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Epoxy resin (MW ≤ 700)	OECD 301F	5 % - 28 days	-	-
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	-	37 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Epoxy resin (MW ≤ 700)	-	-	Not readily
benzyl alcohol	-	-	Readily
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	-	Low
Epoxy resin (MW ≤ 700)	3	31	Low
benzyl alcohol	0.87	-	Low

### Mobility in soil

## Section 12. Ecological information

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	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
Packing group	III	III	III
Environmental hazards Marine pollutant substances	Yes. (Epoxy Resin)	Yes. (Epoxy Resin)	Yes. 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.



## Section 14. Transport information

**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: 2.43-2.45 (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

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

**Health** : 3 \* **Flammability** : 1 **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** : 1 **Instability** : 0

**Date of issue/Date of revision** 20 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

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.