

SAFETY DATA SHEET



Date of issue/Date of revision 15 September 2025

Version 5

Section 1. Identification

Product name : NOVAGUARD 5041 BLACK - A

Product code : 00462693

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.

Manufacturer : 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. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 26.9% (oral), 79.1% (dermal), 81% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Section 2. Hazards identification

- Hazard statements

: Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.


Suspected of causing cancer.

May damage fertility or the unborn child.
- 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 must not be allowed out of the workplace.

Response

:  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


: 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.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.
- Section 3. Composition/information on ingredients
- Substance/mixture

: Mixture

Product name

: NOVAGUARD 5041 BLACK - A
- | Ingredient name | Synonyms | % | 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 [| 30 - 60 | 9003-36-5 |
- United States

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Section 3. Composition/information on ingredients

| | | | |
|--|---|---------|------------|
| Phenol, polymer with formaldehyde, glycidyl ether (MW≤700) | (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 | 10 - 30 | 28064-14-4 |
| 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 | 5 - 10 | 14807-96-6 |
| Epoxy resin (MW ≤ 700) | reaction product : bisphenol a- (epichlorohydrin) ; epoxy resin (number average molecular weight ≤ 700) | 3 - 7 | 25068-38-6 |
| 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-2-furanmethanol; FURFURYL ALCOHOL, TETRAHYDRO-; 2-Hydroxymethyl oxolane | 1 - 5 | 97-99-4 |
| [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 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) | 1 - 5 | 2530-83-8 |

Section 3. Composition/information on ingredients

| | | | |
|--------------|---|-----------|-----------|
| carbon black | propyltrimethoxy-; Trimethoxy[3-(oxiran-2-ylmethoxy)propyl]silane; 2,3-Epoxy propoxy propyltrimethoxysilane; Coupling agent KH-560; Coupler KH-560; 2-[[3-(Trimethoxysilyl)propoxy]methyl]oxirane | | |
| | Lampblack; Acetylene black; C.I. 77266; C.I. Pigment Black 6; C.I. Pigment Black 7; Charcoal | 0.5 - 1.5 | 1333-86-4 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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. 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

Section 4. First aid measures

- 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** : 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. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
halogenated compounds
metal oxide/oxides
Formaldehyde.

Section 5. Fire-fighting measures

- 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. 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. 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.

Section 7. Handling and storage

- 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

| Ingredient name | Exposure limits |
|---|--|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Phenol, polymer with formaldehyde, glycidyl ether (MW<=700) benzyl alcohol Talc , not containing asbestiform fibres Epoxy resin (MW ≤ 700) tetrahydro-2-furylmethanol [3-(2,3-epoxypropoxy)propyl]trimethoxysilane carbon black | None. None. None. ACGIH TLV (United States, 1/2024) TWA 8 hours: 2 mg/m³. Form: Respirable fraction. OSHA PEL Z3 (United States) TWA: 2 mg/m³. None. None. None. ACGIH TLV (United States, 1/2024) TWA 8 hours: 3 mg/m³. Form: Inhalable fraction. OSHA PEL (United States, 5/2018) TWA 8 hours: 3.5 mg/m³. |

Key to abbreviations

- A = Acceptable Maximum Peak

ACGIH = American Conference of Governmental Industrial Hygienists.

C = Ceiling Limit

F = Fume

IPEL = Internal Permissible Exposure Limit

OSHA = Occupational Safety and Health Administration.

R = Respirable

Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances
- S = Potential skin absorption

SR = Respiratory sensitization

SS = Skin sensitization

STEL = Short term Exposure limit values

TD = Total dust

TLV = Threshold Limit Value

TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Section 8. Exposure controls/personal protection

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

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. The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Liquid. |
| Color | : Black. |
| 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 | : 1.21 |
| Density (lbs / gal) | : 10.1 |

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) : 37.395

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.

Section 10. Stability and reactivity

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 benzyl alcohol | Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists | >10000 mg/kg >2000 mg/kg 1200 mg/kg >5 mg/l [4 hours] |
| Epoxy resin (MW ≤ 700) | Rat - Oral - LD50 Rabbit - Dermal - LD50 | >2 g/kg >2 g/kg |
| tetrahydro-2-furymethanol | Rat - Oral - LD50 Rabbit - Dermal - LD50 | 1600 mg/kg 1.22 g/kg |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Rat - Inhalation - LC50 Vapor Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists | 19630 mg/m ³ [4 hours] 7.01 g/kg >5.3 mg/l [4 hours] |
| carbon black | Rat - Oral - LD50 | >10 g/kg |

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

Skin corrosion/irritation

| Product/ingredient name | Species | Dose | Score |
|-------------------------|-------------------------------|------|-------|
| Epoxy resin (MW ≤ 700) | Rabbit - Skin - Mild irritant | - | - |

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

Serious eye damage/eye irritation

| Product/ingredient name | Species | Dose | Score |
|-------------------------|-------------------------------|------|-------|
| Epoxy resin (MW ≤ 700) | Rabbit - Eyes - Mild irritant | - | - |

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

Respiratory corrosion/irritation

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

Sensitization

| Product/ingredient name | Species | Result |
|-------------------------|--------------------------|---------------------|
| Epoxy resin (MW ≤ 700) | Mouse - skin OECD 429 | Result: Sensitizing |

Skin

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

Respiratory

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

Mutagenicity

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

Section 11. Toxicological information

Carcinogenicity

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

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Carbon black | - | 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.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Result |
|--|---|
| Talc , not containing asbestiform fibres | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

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.

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. 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. 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

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

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

Acute toxicity estimates

Section 11. Toxicological information

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| NOVAGUARD 5041 BLACK - A | 6499.1 | 2326.1 | N/A | 78.6 | N/A |
| benzyl alcohol | 1200 | 2500 | N/A | N/A | N/A |
| Epoxy resin (MW ≤ 700) | 2500 | 2500 | N/A | N/A | N/A |
| tetrahydro-2-furymethanol | 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 |
|--|--|------------------------------------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Epoxy resin (MW ≤ 700) | Acute - LC50 2.54 mg/l [96 hours] Chronic - NOEC 0.3 mg/l [21 days] Acute - LC50 1.8 mg/l [48 hours] | Fish Daphnia Daphnia |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Acute - EC50 - Fresh water 255 mg/l [72 hours] Acute - EC50 473 mg/l [48 hours] Acute - LC50 55 mg/l [96 hours] | Algae Daphnia Fish |

Conclusion/Summary : Not available.

Persistence and degradability

| Product/ingredient name | Result |
|--|-----------------------------|
| Epoxy resin (MW ≤ 700) | OECD 301F 5% [28 days] |
| [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 |
| benzyl alcohol | 0.87 | - | Low |
| Epoxy resin (MW ≤ 700) | 3 | 31 | Low |

Mobility in soil

Section 12. Ecological information

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

14. Transport information

| | DOT | IMDG | IATA |
|-----------------------------|-----------------|---|---|
| UN number | Not regulated. | 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)) |
| Transport hazard class(es) | - | 9 | 9 |
| Packing group | - | III | III |
| Environmental hazards | No. | Yes. | Yes. |
| Marine pollutant substances | Not applicable. | (Epoxy Resin) | Not applicable. |

Additional information

DOT : None identified.

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.

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.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
HNOC - Defatting irritant

Composition/information on ingredients

| Name | % | Classification |
|--|-------------|--|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | ≥20 - ≤50 | SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B |
| Phenol, polymer with formaldehyde, glycidyl ether (MW≤700) | ≥20 - ≤50 | SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B |
| benzyl alcohol | ≥5.0 - ≤8.5 | ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A |
| Talc , not containing asbestiform fibres | ≥5.0 - ≤10 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| Epoxy resin (MW ≤ 700) | ≥1.0 - ≤6.2 | SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B |
| tetrahydro-2-furylmethanol | ≥1.0 - ≤5.0 | FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B HNOC - Defatting irritant |
| [3-(2,3-epoxypropoxy)propyl] trimethoxysilane | ≥1.0 - ≤5.0 | SERIOUS EYE DAMAGE - Category 1 |
| carbon black | ≥1.0 - ≤5.0 | COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2 |

Section 15. Regulatory information

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

[California Prop. 65](#)

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

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 previous issue : 5/21/2025

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](#)

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.