# **SAFETY DATA SHEET**



Date of issue/Date of revision 21 May 2022 Version 13

Section 1. Identification				
Product name	: NOVAGUARD 840 HARDENER GREEN 4000			
Product code	: 00364645			
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, Used by spraying.			
Use of the substance/ mixture	: Coating.			
Uses advised against	: Not applicable.			
Manufacturer	: PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272			
<u>Emergency telephone</u> <u>number</u>	: (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	<ul> <li>This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).</li> </ul>
Classification of the	: ACUTE TOXICITY (oral) - Category 4
substance or mixture	ACUTE TOXICITY (dermal) - Category 3
	ACUTE TOXICITY (inhalation) - Category 3
	SKIN CORROSION - Category 1A
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 3.5% (dermal), 2% (inhalation)
GHS label elements	
Hazard pictograms	

**United States** 

Page: 1/14

Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 2. Hazards identification

Signal word	1	Danger
Hazard statements	:	Harmful if swallowed. Toxic in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure.
Precautionary statements		
Prevention	:	Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. 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	1	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. Emits toxic fumes when heated.
Hazards not otherwise classified	:	None known.

# Section 3. Composition/information on ingredients

Substance/mixture: MixtureProduct name: NOVAGUARD 840 HARDENER GREEN 4000

Ingredient name	%	CAS number
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	≥75 - ≤90	6864-37-5
benzyl alcohol	≥10 - ≤14	100-51-6
N-(3-(trimethoxysilyl)propyl)ethylenediamine	≥1.0 - ≤4.0	1760-24-3
2,4,6-tris(dimethylaminomethyl)phenol	≥1.0 - ≤3.6	90-72-2

SUB codes represent substances without registered CAS Numbers.

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

Unit	ited States	Page: 2/14
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#### Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 3. Composition/information on ingredients

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	<ul> <li>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.</li> </ul>
Skin contact	<ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.</li> </ul>
Ingestion	<ul> <li>If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.</li> </ul>

#### Most important symptoms/effects, acute and delayed

Potential acute health effe	<u>cts</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Toxic if inhaled.
Skin contact	: Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.
Over-exposure signs/symp	<u>otoms</u>
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
ndication of immediate me	dical 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.
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 o 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.
	United States Page: 3/14

United States Page: 3/14

Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 4. First aid measures

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 nitrogen oxides metal oxide/oxides Formaldehyde.
Special protective actions for fire-fighters	<ul> <li>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.</li> </ul>
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

disposal contractor.

Personal precautions, protect	tive 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 co	ontainment 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

United States Page: 4/14

#### Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 6. Accidental release measures

#### Large spill

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

# Section 7. Handling and storage

#### Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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	: 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	
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	None.	
benzyl alcohol	IPEL (-).	
	TWA: 5 ppm	
	STEL: 10 ppm	
N-(3-(trimethoxysilyl)propyl)ethylenediamine	None.	
2,4,6-tris(dimethylaminomethyl)phenol	None.	

United States Page: 5/14

### Product name NOVAGUARD 840 HARDENER GREEN 4000

# Section 8. Exposure controls/personal protection

			Key to abbreviations			
A ACGIH C F IPEL	<ul> <li>Acceptable Maximum Pet</li> <li>American Conference of</li> <li>Ceiling Limit</li> <li>Fume</li> <li>Internal Permissible Exp</li> </ul>	Gc	vernmental Industrial Hygienists.	S SR SS STEL TD	<ul> <li>Potential skin absorption</li> <li>Respiratory sensitization</li> <li>Skin sensitization</li> <li>Short term Exposure limit values</li> <li>Total dust</li> </ul>	
OSHA R Z	OSHA = Occupational Safety and Health Administration. R = Respirable			TLV TWA	<ul><li>Threshold Limit Value</li><li>Time Weighted Average</li></ul>	
Consult	local authorities for a	aco	ceptable exposure limits.			
Recom procec	imended monitoring lures	-	the ventilation or other control measure	ay be re es and/o uld be m uents for	quired to determine the effectiveness of r the necessity to use respiratory ade to appropriate monitoring standards.	
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 pro they comply with the requirements of e cases, fume scrubbers, filters or engin	ons from ventilation or work process equipment should be checked to ensure mply with the requirements of environmental protection legislation. In some fume scrubbers, filters or engineering modifications to the process equipment 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	1	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	1	nitrile neoprene
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.

Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 8. Exposure controls/personal protection

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.
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# Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Green.
Odor	: Characteristic.
Odor threshold	: Not available.
рН	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 105°C (221°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: 0.08 (butyl acetate = 1)
Vapor pressure	: 1 kPa (7.5 mm Hg)
Vapor density	: Not available.
Relative density	: 0.97
Density(lbs / gal)	: 8.1
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-	: Not applicable.
octanol/water	
Viscosity	: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
Volatility	: 1 <sup>3</sup> % (v/v), 13.594% (w/w)
% Solid. (w/w)	: 🖻 6.406

# Section 10. Stability and reactivity

	United States Page: 7/14
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Chemical stability	: The product is stable.
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.

Date of issue 21 May 2022

Version 13

Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 10. Stability and reactivity

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 Formaldehyde. metal oxide/oxides

# Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine)	LC50 Inhalation Dusts and mists	Rat	420 mg/m <sup>3</sup>	4 hours
, , , , , , , , , , , , , , , , , , ,	LD50 Dermal	Rabbit	>0.2 g/kg	-
	LD50 Oral	Rat	>0.32 g/kg	-
benzyl alcohol	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	-
N-(3-(trimethoxysilyl)propyl) ethylenediamine	LD50 Oral	Rat	2413 mg/kg	-
2,4,6-tris (dimethylaminomethyl)phenol	LD50 Dermal	Rabbit	1.28 g/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
₽,4,6-tris (dimethylaminomethyl)phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days

<u>Conclusion/Summary</u>	
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	
Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
<u>Mutagenicity</u>	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
<b>Carcinogenicity</b>	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
Reproductive toxicity	

Date of issue 21 May 2022

Version 13

#### Product name NOVAGUARD 840 HARDENER GREEN 4000

### 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)

Not available.

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

Name		Route of exposure	Target organs
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Category 2	-	-

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, the nervous system, upper respiratory tract, skin, eyes, adrenal, central nervous system (CNS).

#### Aspiration hazard

Not available.

#### Information on the likely routes of exposure

#### Potential acute health effects

: Causes serious eye damage.
Toxic if inhaled.
: Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.
: Harmful if swallowed.
<u>ms</u>
: Adverse symptoms may include the following: pain watering redness
: No specific data.
Adverse symptoms may include the following: pain or irritation redness blistering may occur
: Adverse symptoms may include the following:
stomach pains
s and also chronic effects from short and long term exposure
: 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

United States Page: 9/14

#### Product name NOVAGUARD 840 HARDENER GREEN 4000

# Section 11. Toxicological information

		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.
<u>Short term exposure</u>		
Potential immediate	1	There are no data available on the mixture itself.
effects		
Potential delayed effects	1	There are no data available on the mixture itself.
<u>Long term exposure</u>		
Potential immediate	1	There are no data available on the mixture itself.
effects		
Potential delayed effects	1	There are no data available on the mixture itself.
Potential chronic health effe	<u>ect</u>	<u>s</u>
General	:	May cause damage to organs through prolonged or repeated exposure. Once
		sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	1.	No known significant effects or critical hazards.
Mutagenicity		No known significant effects or critical hazards.
Reproductive toxicity	÷	No known significant effects or critical hazards.
Numerical measures of toxic	ity	

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/ I)
NOVAGUARD 840 HARDENER GREEN 4000	578	365.2	N/A	317.2	0.59
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	500	300	N/A	N/A	0.5
benzyl alcohol	1230	2000	N/A	N/A	1.5
N-(3-(trimethoxysilyl)propyl)ethylenediamine	2413	N/A	N/A	11	1.5
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
₽,4,6-tris (dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours

#### Persistence and degradability

United States	Page: 10/14

#### Date of issue 21 May 2022

Version 13

Product name NOVAGUARD 840 HARDENER GREEN 4000

# Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine) benzyl alcohol 2,4,6-tris (dimethylaminomethyl)phenol	1.8 0.87 0.219		low low low

#### Mobility in soil

Soil/water partition coefficient (Koc)

: 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

	DOT	IMDG	ΙΑΤΑ
UN number	UN2922	UN2922	UN2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.	CORROSIVE LIQUID, TOXIC, N.O.S.	CORROSIVE LIQUID, TOXIC, N.O.S.
	(2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine), 2,4,6-tris (dimethylaminomethyl)phenol)	(2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine), 2,4,6-tris (dimethylaminomethyl)phenol)	(2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine), 2,4,6-tris (dimethylaminomethyl)phenol)
		Un	ited States Page: 11/14

### 14. Transport information

Date of issue 21 May 2022

Product name NOVAGUARD 840 HARDENER GREEN 4000

### 14. Transport information

Transport hazard class (es)	8 (6.1)	8 (6.1)	8 (6.1)
Packing group	II	II	Ι
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine))	Not applicable.

#### **Additional information**

DOT	: None identified.
IMDG	: The marine pollutant mark is not required when transported in sizes of $\leq$ 5 L or $\leq$ 5 kg.
ΙΑΤΑ	: The environmentally hazardous substance mark may appear if required by other transportation regulations.

# 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 : Not applicable. to IMO instruments

# 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	: ACUTE TOXICITY (oral) - Category 4
	ACUTE TOXICITY (dermal) - Category 3
	ACUTE TOXICITY (inhalation) - Category 3
	SKIN CORROSION - Category 1A
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

#### **Composition/information on ingredients**

Product name NOVAGUARD 840 HARDENER GREEN 4000

# Section 15. Regulatory information

Name	%	Classification
2,2'-dimethyl-4,4'-methylenebis	≥75 - ≤90	ACUTE TOXICITY (oral) - Category 4
(cyclohexylamine)		ACUTE TOXICITY (dermal) - Category 3
		ACUTE TOXICITY (inhalation) - Category 3
		SKIN CORROSION - Category 1A
		SERIOUS EYE DAMAGE - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
benzyl alcohol	≥10 - ≤14	ACUTE TOXICITY (oral) - Category 4
		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		EYE IRRITATION - Category 2A
N-(3-(trimethoxysilyl)propyl)	≥1.0 - ≤4.0	ACUTE TOXICITY (inhalation) - Category 4
ethylenediamine		SERIOUS EYE DAMAGE - Category 1
		SKIN SENSITIZATION - Category 1B
2,4,6-tris(dimethylaminomethyl)	≥1.0 - ≤3.6	ACUTE TOXICITY (oral) - Category 4
phenol		ACUTE TOXICITY (dermal) - Category 4
		SKIN CORROSION - Category 1C
		SERIOUS EYE DAMAGE - Category 1

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

### Section 16. Other information

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

Health: 4 \* Flammability: 1 Physical hazards: 1

(\*) - Chronic effects

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

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

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

Health : 4 Flamma	bility : 1 Instability : 1
Date of previous issue	: 11/7/2021
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 = Internediate 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)

United States Page: 13/14

Product name NOVAGUARD 840 HARDENER GREEN 4000

### Section 16. Other information

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.