SAFETY DATA SHEET



Conforms to Official Mexican Standard NOM-018-STPS-2015

Date of revision 10 February 2025

Version 2

Date of issue 10 February 2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	: NOVAGUARD 890 HRD CREAM 3002
Product code	: 19A0479926
Other means of identification	: Not applicable.
Product type	: Liquid.
Relevant identified uses of	the substance or mixture and uses advised against
Product use	: Professional applications.
Use of the substance/ mixture	: Hardener.
Uses advised against	Not applicable.
Manufacturer	: Comercial Mexicana de Pinturas S.A. de C.V. Marcos Achar Lobatón, No. 6 Tepexpan, Acolman, Estado de México CP. 55885 Tel. (55)1669-1400 (México)
Emergency telephone number	: Mexico: 01-800-00-214-00, (+)(52(55) 5559-1588
Customer Service / Technical Phone Number	: 800 7126-639 (México)

SECTION 2: Hazards identification

Classification of the substance or mixture	 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 Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 5.4%
GHS label elements	
Hazard pictograms	



Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 2: Hazards identification

Signal word	:	Danger
Hazard statements	:	H302 - Harmful if swallowed. H311 + H331 - Toxic in contact with skin or if inhaled. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements		
Prevention	:	 P280 - Wear protective gloves, protective clothing and eye or face protection. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace.
Response	:	 304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P363 - Wash contaminated clothing before reuse. P305 + P351 + P338, P310 - 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	:	P405 - Store locked up.
Disposal	:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	:	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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Emits toxic fumes when heated.
Son toxicological information	<u>م ر د</u>	Section 11)

See toxicological information (Section 11)

SECTION 3: Composition/information on ingredients

: NOVAGUARD 890 HRD CREAM 3002

: Mixture

: Not applicable.

Substance/mixture
Product name
Other means of
identification

Ingredient name	%	CAS number
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	≥75 - ≤90	6864-37-5
benzyl alcohol	≥10 - ≤20	100-51-6
N-(3-(trimethoxysilyl)propyl)ethylenediamine	≥1.0 - ≤5.0	1760-24-3
2,4,6-tris(dimethylaminomethyl)phenol	≥1.0 - ≤3.6	90-72-2

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

Product name NOVAGUARD 890 HRD CREAM 3002

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

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	: 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/symptoms

See toxicological information (Section 11)

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.		
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.		

SECTION 5: Firefighting 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.

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 5: Firefighting measures

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	: 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

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 7: Handling and storage

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) benzyl alcohol	None. IPEL (-) TWA: 5 ppm. STEL: 10 ppm.
N-(3-(trimethoxysilyl)propyl)ethylenediamine 2,4,6-tris(dimethylaminomethyl)phenol	None. None.
Key to abbreviations	

C = Ceiling Limit STEL = Short term exposure limit IPEL = Internal Permissible Exposure Limit TLV = Threshold Limit Value TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering
controls: 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.

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 8: Exposure controls/personal protection

Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measure	<u>es</u>	
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	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.
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	1	Liquid.
Color	1	Not available.
Odor	1	Not available.
Odor threshold	1	Not available.
Molecular weight	1	Not applicable.
рН	4	Not applicable.
Melting point	1	Not available.
Boiling point	1	>37.78°C (>100°F)
Flash point	1	Closed cup: 101°C (213.8°F)
Auto-ignition temperature	1	Not available.
Decomposition temperature	÷	Not available.
Flammability	:	Not available.

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 9: Physical and chemical properties

Lower and upper explosive (flammable) limits	:	Not available.		
Evaporation rate	:	Not available.		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	0.97		
Density (lbs / gal)	:	8.1		
		Media R	esult	
Solubility(ies)	÷	old water N	lot soluble	
Solubility in water	:	Not available.		
Partition coefficient: n- octanol/water	:	Not applicable.		
Viscosity	:	Øynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)		
% Solid. (w/w)	:	98.6		

SECTION 10: Stability and reactivity

	5
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 Formaldehyde. metal oxide/oxides

SECTION 11: Toxicological information

Information on toxicological effects

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-dimethyl-4,4'- methylenebis (cyclohexylamine)	LC50 Inhalation Dusts and mists	Rat	420 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>0.2 g/kg	-
	LD50 Oral	Rat	>0.32 g/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
N-(3-(trimethoxysilyl)propyl)	LD50 Dermal	Rabbit	>2000 mg/kg	-

Date of issue 10 February 2025 Version 2

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 11: Toxicological information

		11			
ethylenediamine	LD50 Oral	Rat	2413 mg/kg	-	
2,4,6-tris	LD50 Dermal	Rat	1280 mg/kg	-	
(dimethylaminomethyl)					
phenol		Det	1000		
	LD50 Oral	Rat	1200 mg/kg	-	
Conclusion/Summary	: There are no data available or	n the mixture itse	elf.		
Irritation/Corrosion					
Conclusion/Summary					
Skin	: There are no data available or	n the mixture itse	elf.		
Eyes	: There are no data available or	n the mixture itse	elf.		
Respiratory	: There are no data available or	n the mixture itse	elf.		
Sensitization					
Conclusion/Summary					
Skin	: There are no data available or	n the mixture itse	elf.		
Respiratory	: There are no data available or	n the mixture itse	elf.		
Mutagenicity					
Conclusion/Summary	: There are no data available or	n the mixture itse	elf.		
Carcinogenicity					
Conclusion/Summary	: There are no data available or	n the mixture itse	elf.		
Reproductive toxicity					
Conclusion/Summary	clusion/Summary : There are no data available on the mixture itself.				
Teratogenicity					
Conclusion/Summary	: There are no data available or	n the mixture itse	elf.		
Specific target organ toxicit	ty (single exposure)				
Nome		1	Devete of	Townst surveys	

Name		Route of exposure	Target organs
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Category 3		Respiratory tract irritation

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

Aspiration hazard

Name	Result
benzyl alcohol	ASPIRATION HAZARD - Category 2

Information on the likely routes of exposure

Potential acute health effects

Eye contact

: Causes serious eye damage.

(CNS).

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 11: Toxicological information

Over-exposure signs/symptoms Eye contact : Adverse symptoms may include the following: pain watering redness Inhalation : No specific data. Skin contact : Adverse symptoms may include the following: pain or irritation redness bilstering may occur Ingestion : Adverse symptoms may include the following: stomach pains Delayed and immediate effects and also chronic effects from short and long term exist conclusion/Summary : Fhere are no data available on the mixture itself. Trime forming methanol if hydrolyzed or ingested. If swallowe or fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of th exposure limit may result in adverse health effects such respiratory system irritation and adverse effects on the nervous system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, , takes into account, where known, delayed and immedia effects of components from short-term and long-term ec and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described at or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye p 8 is worn, exposure is significantly reduced and the con short term exposure Potential immediate There are no data available on the mixture its	Mexico	Page: 9/13
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term er forning methanol if hydrolyzed or ingested. If swallower or fatal or cause blindness. This product either contain of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excees of the exposure limit may result in adverse heath effects such respiratory system irritation and adverse effects on the I nervous system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, of takes into account, where known, delayed and immedia effects of component solvent vand long-term ec and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye g 8 is worn, exposure is significantly reduced and the con Short term exposurePotential immediate effects: There are no data available on the mixture itself.Long term exposure Potential delayed effects: There are no data available on the mixture itself.Potential delayed ef		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term exp Conclusion/Summary: Phere are no data available on the mixture itself. Trime forming methanol if hydrolyzed or ingested. If swallowed or fatal or cause blindness. This product either contain of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of the exposure limit may result in adverse health effects on the 1 nervous system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, or takes into account, where known, delayed and immediate effects of components from short-term and long-term et and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye is is worn, exposure is significantly reduced and the con Short term exposurePotential immediate effects: There are no data available on the mixture itself.Long term exposure Potential delayed effects: There are no data available on the mixture its		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term exist or fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of th exposure limit may result in adverse effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greated from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause and deverse effects by abso There is some evidence that repeated exposure to eye combination with constant loud noise can cause greated from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, o t takes into account, where known, delayed and immedia effects of components from short-term and long-term eye and dermal routes of exposure and eye contact. Exposure ported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye I 8 is worn, exposure is significantly reduced and the con 8 is worn, exposure is significantly reduced and the con 8 is worn, exposure is significantly reduced and the con 8 is worn, exposure is significantly reduced and the con 8 is worn, exposure is significantly reduced and the con 8 is worn, exposure is significantly reduced and the con 9 toutial immediat		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects redness: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term exits forming methanol if hydrolyzed or ingested. If swallowed or fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of the exposure limit may result in adverse health effects such respiratory system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, or takes into account, where known, delayed and immediat effects of components from short-term and long-term eye and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye [8 is worn, exposure is significantly reduced and the con Short term exposure Potential limmediate effectsPotential delayed effects: There are no data available on the mixture itself. Long term exposure Potential immediate		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term ex forming methanol if hydrolyzed or ingested. If swallowed or fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of th exposure limit may result in adverse effects und a lower and reversible damage. Ingestion may cause guested trespiratory system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, o takes into account, where known, delayed and immedia effects of components from short-term and long-term ex and dermal routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a derma routes of exposure and eye contact. Exposure to a dermal routes of exposure and eye contact. Exposure to a derma routes of exposure and eye contact. Exposure to a derma routes of exposure and eye con		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effectsand also chronic effects from short and long term ex forming methanol if hydrolyzed or ingested. If swallowed or fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of the exposure limit may result in adverse effects on the nervous system. Symptoms and signs include headact muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause naused, or takes into account, where known, delayed and immedia effects of components from short-term and long-term exi and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye is 8 is worn, exposure is significantly reduced and the con Short term exposureShort term exposure effects: There are no data available on the mixture itself.		
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach painsDelayed and immediate effects and also chronic effects from short and long term exposure for fatal or cause blindness. This product either contains of releasing formaldehyde above 0.5 pm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excress of the exposure limit may result in adverse effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, takes into account, where known, delayed and immediate effects of components from short-term and long-term er and reversible damage. Ingestion may cause nausea, takes into account, where known, delayed and immediate effects of components from short-term and long-term er and dermal routes of exposure and eye contact. Exposure and reversible damage. Ingestion may cause nausea, takes into accouse transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye 8 is worn, exposure is significantly reduced and the contains or subured vision for several hours. This condition is typ cause permanent visual effects. When the proper eye 8 is worn, exposure is significantly reduced and the contains or significantly reduced and the contains or subured vision for several hours. This condition is typ cause permanent visual effects. When the proper		
Eye contact : Adverse symptoms may include the following: pain watering redness Inhalation : No specific data. Skin contact : Adverse symptoms may include the following: pain or irritation redness blistering may occur Ingestion : Adverse symptoms may include the following: stomach pains Delayed and immediate effects and also chronic effects from short and long term exist of releasing formaldehyde above 0.5 ppm under certain a known cancer hazard, a skin sensitizer and a respirat component solvent vapor concentrations in excess of the exposure limit may result in adverse health effects such muscular weakness, drowsiness and, in extreme cases Solvents may cause some of the above effects by abso There is some evidence that repeated exposure to orga combination with constant loud noise can cause greater from exposure to noise alone. If splashed in the eyes, t and reversible damage. Ingestion may cause nausea, o takes into account, where known, delayed and immedia effects of components form short-term and long-term er and dermal routes of exposure and eye contact. Expos reported to cause transient corneal deema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye 8 is worn, exposure is significantly reduced and the contained the set of the store of the and dermal routes of exposure and eye contact. Expos reported to cause transient corneal edema described as or blurred vision for several hours. This condition is typ cause permanent visual effects. When the proper eye of 8 is worn, exposure is significantly reduced and the corneal form the proper eye of a se worn, exposure is significantly reduced and the corn		
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: pain or irritation redness blistering may occur Ingestion : Adverse symptoms may include the following: stomach pains Delayed and immediate effects and also chronic effects from short and long term ex Conclusion/Summary	ns formaldehyde in conditions. Fo atory sensitizer. the stated occup ch as mucous mo e kidneys, liver at che, dizziness, fa es, loss of consci corption through ganic solvent vap er hearing loss th , the liquid may co , diarrhea and vo iate effects and a exposure by oral posure to amine va as blue haze, ha pically temporary	e or is capable rmaldehyde is Exposure to pational embrane and nd central atigue, iousness. the skin. pors in han expected cause irritation pmiting. This also chronic I, inhalation apor has been lo effect, foggy y and does no ified in Section
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: stomach pains	nethoxysilanes ar	
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occurIngestion: Adverse symptoms may include the following: redness blistering may occur	exposure	
Eye contact: Adverse symptoms may include the following: pain watering rednessInhalation: No specific data.Skin contact: Adverse symptoms may include the following: pain or irritation		
Eye contact : Adverse symptoms may include the following: pain watering redness		
Eye contact : Adverse symptoms may include the following: pain watering		
Over-experience signs/symptoms		
Ingestion : Harmful if swallowed.		
Skin contact : Causes severe burns. Toxic in contact with skin. May reaction. Ingestion : Harmful if swallowed.	ly cause an aller	gic skin
Inhalation : Toxic if inhaled.		

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 11: Toxicological information

- Mutagenicity
- : No known significant effects or critical hazards.
- **Reproductive toxicity**
- : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
NOVAGUARD 890 HRD CREAM 3002	577.3	365.4	N/A	N/A	0.63
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	500	300	N/A	N/A	0.5
benzyl alcohol	1200	2500	N/A	N/A	N/A
N-(3-(trimethoxysilyl)propyl)ethylenediamine	2413	2500	N/A	N/A	N/A
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
N→-(3-(trimethoxysilyl)propyl) ethylenediamine	EC50 597 mg/l	Fish	96 hours
2,4,6-tris (dimethylaminomethyl)phenol	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result		Dose	Inoculum
2,4,6-tris (dimethylaminomethyl)phenol	OECD Ready Biodegradability - Closed Bottle Test	4 % - Not readily - 2	8 days	-	-
Product/ingredient name	Aquatic half-life		Photolysis	S	Biodegradability
Penzyl alcohol 2,4,6-tris (dimethylaminomethyl)phenol	-		-		Readily Not readily

Bioaccumulative potential

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

Mobility in soil

Soil/Water partition coefficient

: Not available.

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 12: Ecological information

Other adverse effects

: No known significant effects or critical hazards.

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

	Mexico Classification	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)
Transport hazard class(es)	8 (6.1)	8 (6.1)	8 (6.1)
Packing group	II	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	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

Mexico	: 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.

Product name NOVAGUARD 890 HRD CREAM 3002

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 : Not applicable. to IMO instruments

SECTION 15: Regulatory information

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

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.

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) N/A = Not available SGG = Segregation Group UN = United Nations	Date of previous issue Organization that prepared the SDS	: 9/12/2022 : EHS
_	Key to abbreviations	BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association 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

Indicates information that has changed from previously issued version.

Notice to reader

The information, which is based on the current knowledge of the chemical substance or mixture and applies to appropriate safety precautions for the product, is deemed correct but is not exhaustive and will be used only as a guide.

Disclaimer

Product name NOVAGUARD 890 HRD CREAM 3002

SECTION 16: Other information

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.