SAFETY DATA SHEET

pPG

Date of issue/Date of revision 2 D

2 December 2025

Version 2.03

Section 1. Identification

Product code : 000001090258

Product name : NOVAGUARD 4801 CATALYST

CAS number : Not applicable.

EC number : Mixture.

Other means of identification

00346208; 00673779

Product type : Liquid.

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

Product use : Coating.

Professional applications, Used by spraying.

Uses advised against: Product is not intended, labelled or packaged for consumer use.

Supplier's details : PPG Yung Chi Coatings Co. Ltd

Lot 219, Amata Street, Long Binh IZ Bien Hoa City, Dong Nai Province

Vietnam

Tel: +84 61 3936121/22

Emergency telephone number (with hours of

operation)

: CHEMTREC +(84)-444581938 (CCN 17704)

Section 2. Hazards identification

Classification of the substance or mixture

: ORGANIC PEROXIDES - Type C

ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 2

SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

AQUATIC TOXICITY (ACUTE) - Category 2
AQUATIC TOXICITY (CHRONIC) - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal

toxicity: 46%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation

toxicity: 56%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the

aquatic environment: 38%

GHS label elements

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Section 2. Hazards identification

Hazard pictograms

:









Signal word : Danger

Hazard statements : Heating may cause a fire.

Harmful if swallowed or in contact with skin. Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Fatal if inhaled.

May cause respiratory irritation.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

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. In case of inadequate ventilation wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original packaging. Keep cool. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing 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. Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Store separately.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Routes of entry

: Not available.

Other hazards which do not result in classification

: Temperature control may be required. Hazardous decomposition may occur.

Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable. **EC number** : Mixture.

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Section 3. Composition/information on ingredients

Ingredient name	CAS number	Chemical formula	%
di-"isononyl" phthalate	28553-12-0	C26-H42-O4	≥25 - ≤50
ethyl acetoacetate	141-97-9	C6H10O3	≥10 - ≤25
α,α-dimethylbenzyl hydroperoxide	80-15-9	C9H12O2	≥10 - ≤19
2-Butanone, peroxide	1338-23-4	C8H18O6	≥10 - ≤17
tert-butyl perbenzoate	614-45-9	C11H14O3	≤8.5
cumene	98-82-8	C9H12	≤3.5

There are no 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.

SUB codes represent substances without registered CAS Numbers.

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 : Fatal if inhaled. May cause respiratory irritation.

Skin contact: Causes severe burns. Harmful in contact with skin. Defatting to the skin. May

cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

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Section 4. First aid measures

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

: Runoff to sewer may create fire or explosion hazard. This material increases the risk of fire and may aid combustion. Heating may cause a fire. May re-ignite itself after fire is extinguished. Hazardous decomposition may occur. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products Decomposition products may include the following materials: carbon oxides

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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".

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Section 6. Accidental release measures

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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid contamination with reactive substances. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. 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. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid contamination with reactive substances. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Keep away from clothing, incompatible materials and combustible materials. Temperature control may be required. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

: To avoid the risk of formation of shock-sensitive crystals or loss of stability, it is important to store the product within the recommended temperature range. Temperature control may be required. Store in accordance with local regulations. Store in a segregated and approved area. 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 at temperatures not exceeding 20 °C/68 °F. Store locked up. Eliminate all ignition sources. Separate from

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Section 7. Handling and storage

reducing agents and combustible materials. Keep away from rust, iron and copper. Keep container tightly closed and sealed until ready for use. Prevent product contamination. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
⊵ -Butanone, peroxide	ACGIH TLV (United States, 1/2025)
	C: 0.2 ppm. C: 1.5 mg/m³.
cumene	Ministry of Health (Viet Nam, 6/2019) TWA 8 hours: 80 mg/m³. STEL 15 minutes: 100 mg/m³.

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Use with adequate ventilation.

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 Skin protection

: Chemical splash goggles and face shield.

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

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Section 8. Exposure controls/personal protection

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. Color : Clear.

Odor Not available. **Odor threshold** : Not available. : Not applicable. **Melting point** : Not available. **Boiling point** : >37.78°C (>100°F)

Flash point : Closed cup: Not applicable.

Evaporation rate Not available. Flammability (solid, gas) : Not available. Lower and upper explosive

(flammable) limits

: Not available.

: Not available. Vapor pressure : Not available. Vapor density

1.05 Relative density

Media Result Solubility(ies)

cold water Not soluble

Partition coefficient: n-

octanol/water

Viscosity

: Not applicable.

Auto-ignition temperature : Not available. : Not available. **Decomposition temperature**

: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm²/s

Section 10. Stability and reactivity

Reactivity : This product possesses explosive properties but, as packaged, will not detonate or

deflagrate rapidly or undergo a thermal explosion.

Chemical stability : The product is stable.

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Section 10. Stability and reactivity

Possibility of hazardous reactions

: Hazardous reactions or instability may occur under certain conditions of storage or

Conditions may include the following:

temperature increase high temperature

Reactions may include the following:

hazardous decomposition

risk of causing fire

Conditions to avoid

: When exposed to high temperatures may produce hazardous decomposition

products.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
₫-"isononyl" phthalate	LD50 Dermal	Rabbit	>3160 mg/kg	-
	LD50 Oral	Rat	10000 mg/kg	-
ethyl acetoacetate	LD50 Oral	Rat	3980 mg/kg	-
α,α-dimethylbenzyl hydroperoxide	LC50 Inhalation Dusts and mists	Rat	1.37 mg/l	4 hours
	LD50 Dermal	Rat	1200 to 1520 mg/kg	-
	LD50 Oral	Rat	382 mg/kg	-
2-Butanone, peroxide	LC50 Inhalation Gas.	Rat	200 ppm	4 hours
· ·	LC50 Inhalation Vapor	Rat	1440 mg/m³	4 hours
	LD50 Oral	Rat	470 mg/kg	-
tert-butyl perbenzoate	LD50 Oral	Rat	1012 mg/kg	-
cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	2260 mg/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
π,α-dimethylbenzyl hydroperoxide	Skin - Visible necrosis	Rabbit	-	24 hours	24 hours

Conclusion/Summary

Skin Eyes Respiratory

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

Sensitization

Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Mutagenicity

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Section 11. Toxicological information

Conclusion/Summary

: There are no data available on the mixture itself.

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
α,α-dimethylbenzyl hydroperoxide	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
α,α-dimethylbenzyl hydroperoxide	Category 2	-	-
cumene	Category 2	-	-

Aspiration hazard

Name	Result
cumene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Fatal if inhaled. May cause respiratory irritation.

Skin contact: Causes severe burns. Harmful in contact with skin. Defatting to the skin. May

cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur

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Section 11. Toxicological information

Ingestion: Adverse symptoms may include the following:

stomach pains

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

Short term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

Potential delayed effects

: There are no data available on the mixture itself.

Long term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. 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: May cause cancer. Risk of cancer depends on duration and level of exposure.

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

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value	
Oral	1063.3 mg/kg	
Dermal	1826.57 mg/kg	
Inhalation (gases)	586.67 ppm	
Inhalation (vapors)	0.93 mg/l	
Inhalation (dusts and mists)	1.06 mg/l	

Other information

Prolonged or repeated contact may dry skin and cause irritation. 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. Avoid contact with skin and clothing.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
α -"isononyl" phthalate α,α-dimethylbenzyl hydroperoxide	Acute LC50 >102 mg/l Acute EC50 3.1 mg/l	Fish Algae	96 hours 72 hours
	Acute LC50 23.4 mg/l Fresh water Chronic NOEC 1 mg/l	Fish - <i>Danio rerio</i> - Embryo Algae	96 hours 72 hours

Persistence and degradability

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Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
d'-"isononyl" phthalate α,α-dimethylbenzyl hydroperoxide	-	-	Readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
d-"isononyl" phthalate	8.8 to 9.7	-	High
ethyl acetoacetate	0.8	-	Low
α,α-dimethylbenzyl hydroperoxide	1.6	-	Low
2-Butanone, peroxide	<0.3	-	Low
tert-butyl perbenzoate	3	-	Low
cumene	3.55	35.48	Low

Mobility in soil

Soil/Water partition coefficient

: Not available.

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. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
UN number	UN3103	UN3103	UN3103
UN proper shipping name	ORGANIC PEROXIDE TYPE C, LIQUID	ORGANIC PEROXIDE TYPE C, LIQUID	ORGANIC PEROXIDE TYPE C, LIQUID
	(Cumyl hydroperoxide, 2-Butanone, peroxide)	(Cumyl hydroperoxide, 2-Butanone, peroxide)	(Cumyl hydroperoxide, 2-Butanone, peroxide)
Transport hazard class(es)	5.2	5.2	5.2
Packing group	-	-	-
Environmental hazards	No.	No.	No.

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Section 14. Transport information

Marine pollutant Not applicable. Not applicable. Not applicable. substances

Additional information

UN : None identified. **IMDG** : None identified. **IATA** : None identified.

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

Safety, health and environmental regulations specific for the product

- : Law on Chemicals Law No. 69/2025/QH15 (June 14, 2025)
 - Decree No. 113/2017/ND-CP Specifying and guiding the implementation of a number of articles of the Law on Chemicals
 - Decree No. 82/2022/ND-CP Amending and supplementing a number of articles of Decree 113/201/ND-CP dated October 9, 2017 of the Government detailing and quiding the implementation of a number of articles of the Law on Chemicals
 - Decree 33/2024/ND-CP Stipulating the implementation of the convention prohibiting the development, production, stockpiling, use and destruction of chemical weapons
 - Decree 34/2024/ND-CP Stipulating the list of dangerous goods, transport of dangerous goods by road motor vehicles and inland waterway vehicles
 - Decree 43/2017/ND-CP Decree on Goods Labeling
 - Decree 111/2021/ND-CP Amending and supplementing a number of articles of Decree 43/2017/ND-CP dated April 14, 2017
 - Circular 32/2017/TT-BCT Specifying and guiding the implementation of a number of articles of the Law on Chemicals and Decree No. 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals
 - Circular 17/2022 Amending and supplementing a number of articles of Circular No. 32/2017/TT-BCT dated December 28, 2017 of the Minister of Industry and Trade specifying and guiding the implementation of a number of articles of the Law on Chemicals and Decree No. 113/2017/ND-CP dated October 9, 2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals and implementing a number of articles of the Law on Chemicals

Decree No. 113/2017/ND-CP - Chemicals subject to conditional : Applicable

production and trade

Decree No. 113/2017/ND-CP - Chemicals to be declared : Applicable

Toxic classification (TCVN : 3

3164-79)

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

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Section 16. Other information

History

Date of issue/Date of : 2 December 2025

revision

Date of previous issue : 2/11/2025

Version : 2.03 Prepared by : 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)

UN = United Nations

References : Not available.

▼ Indicates information that has changed from previously issued version.

Notice to reader

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.

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