

SAFETY DATA SHEET



Date of issue/Date of revision

24 November 2025

Version 1.02

Section 1. Identification

Product code : 000010024630
Product name : PITT-CHAR NX BASE WHITE (MJ)
CAS number : Not applicable.
EC number : Mixture.
Other means of identification
00464191
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 : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
AQUATIC TOXICITY (ACUTE) - Category 1
AQUATIC TOXICITY (CHRONIC) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 11.9%

GHS label elements

Hazard pictograms



Signal word : Warning

Section 2. Hazards identification

Hazard statements : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life.
Toxic 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. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : Collect spillage. IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up.

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 : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable.

EC number : Mixture.

Ingredient name	CAS number	Chemical formula	%
hexaboron dizinc undecaoxide	12767-90-7	B6O11Zn2	≥10 - ≤25
Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)-bis-[4-(2,3-epoxipropoxy)phenyl]propane	12046-04-7	-	≥10 - ≤21
tris(2-chloro-1-methylethyl) phosphate	1675-54-3	C21H24O4	≥10 - ≤25
Polyphosphoric acids, ammonium salts	13674-84-5	C9H18Cl3O4P	≤9.6
triphenyl phosphate	68333-79-9	-	≤8.8
Epoxy resin (MW ≤ 700)	115-86-6	C18H15O4P	≤7.5
Cashew, nutshell liq.	25068-38-6	(C15-H16-O2. C3-H5-Cl-O)x	≤2.4
2,2-bis(acryloyloxymethyl)butyl acrylate	8007-24-7	-	≤1.6
	15625-89-5	C15H20O6	≤3

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** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.
- 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 irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic 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
phosphorus oxides
halogenated compounds
metal oxide/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. Avoid breathing 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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

Section 6. Accidental release measures

13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. 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
Hexaboron dizinc undecaoxide Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)- triphenyl phosphate Cashew, nutshell liq.	ACGIH TLV (United States, 1/2013) TWA: 3 mg/m ³ (Dusts and mists). Form: Respirable fraction. TWA: 10 mg/m ³ (Dusts and mists). Form: Inhalable fraction. ACGIH TLV (United States) TWA: 10 mg/m ³ . Form: inhalable dust. TWA: 3 mg/m ³ . Form: Respirable dust. ACGIH TLV (United States, 1/2025) TWA 8 hours: 3 mg/m ³ . Ministry of Health (Viet Nam, 6/2019) [vegetable oil] TWA 8 hours: 10 mg/m ³ . Form: Mist.

Recommended monitoring procedures

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

Section 8. Exposure controls/personal protection

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

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 : polyethylene butyl rubber

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

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

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

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Off-white.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: Not applicable.

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: Not available.				
Lower and upper explosive (flammable) limits	: Not available.				
Vapor pressure	: Not available.				
Vapor density	: Not available.				
Relative density	: 1.56				
Solubility(ies)	<table><tr><th>Media</th><th>Result</th></tr><tr><td>cold water</td><td>Not soluble</td></tr></table>	Media	Result	cold water	Not soluble
Media	Result				
cold water	Not soluble				
Partition coefficient: n-octanol/water	: Not applicable.				
Auto-ignition temperature	: Not available.				
Decomposition temperature	: Not available.				
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): >21 mm²/s				

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
hexaboron dizinc undecaoxide	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)-	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	4200 mg/kg	-
	LD50 Dermal	Rabbit	23000 mg/kg	-

Section 11. Toxicological information

phenyl]propane	LD50 Oral	Rat	15000 mg/kg	-
tris(2-chloro-1-methylethyl) phosphate	LC50 Inhalation Dusts and mists	Rat	>7 mg/l	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	1500 mg/kg	-
Polyphosphoric acids, ammonium salts	LD50 Oral	Rat	4.74 g/kg	-
triphenyl phosphate	LD50 Dermal	Rabbit	>7900 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
2,2-bis(acryloyloxymethyl) butyl acrylate	LD50 Dermal	Rabbit	5170 mg/kg	-
	LD50 Oral	Rat	5.19 g/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hexaboron dizinc undecaoxide	Eyes - Cornea opacity	Rabbit	33	24 hours	74 hours
bis-[4-(2,3-epoxipropoxy) phenyl]propane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Eyes - Redness of the conjunctivae	Rabbit	0.4	24 hours	-
	Skin - Edema	Rabbit	0.5	4 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
	Skin - Mild irritant	Rabbit	-	4 hours	-
Epoxy resin (MW ≤ 700)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
2,2-bis(acryloyloxymethyl) butyl acrylate	Skin - Irritant	Rabbit	-	-	-

Conclusion/Summary

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

Eyes : There are no data available on the mixture itself.

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

Sensitization

Product/ingredient name	Route of exposure	Species	Result
bis-[4-(2,3-epoxipropoxy) phenyl]propane	skin	Mouse	Sensitizing
Epoxy resin (MW ≤ 700)	skin	Mouse	Sensitizing
2,2-bis(acryloyloxymethyl) butyl acrylate	skin	Rabbit	Sensitizing

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

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
hexaboron dizinc undecaoxide	Positive	Positive	Positive	Rat	Oral: 375 mg/kg	90 days; 7 days per week

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)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

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.

Section 11. Toxicological information

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 : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5205.83 mg/kg
Dermal	8272.41 mg/kg

Other information :

Sanding and grinding dusts may be harmful if inhaled. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
hexaboron dizinc undecaoxide	Acute EC50 76 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
Borate(5-), bis[μ-oxotetraoxodiborato(4-)]-, ammonium tetrahydrogen, dihydrate, (T-4)-bis-[4-(2,3-epoxypropoxy)phenyl]propane	Acute LC50 2.17 mg/l	Fish - <i>Salmo gairdneri</i>	96 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute LC50 1.8 mg/l Fresh water	Daphnia - <i>daphnia magna</i>	48 hours
Polyphosphoric acids, ammonium salts triphenyl phosphate	Chronic NOEC 0.3 mg/l	Daphnia	21 days
	Acute EC50 730.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 0.09 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
Epoxy resin (MW ≤ 700) 2,2-bis(acryloyloxymethyl)	Chronic NOEC 0.1 mg/l	Algae - <i>Desmodesmus subspicatus</i>	3 days
	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
	Acute LC50 0.87 mg/l	Fish	96 hours

Section 12. Ecological information
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butyl acrylate			
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Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Epoxy resin (MW ≤ 700)	OECD 301F	5 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis-[4-(2,3-epoxipropoxy) phenyl]propane	-	-	Not readily
Epoxy resin (MW ≤ 700)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
hexaboron dizinc undecaoxide	-	60960	High
tris(2-chloro-1-methylethyl) phosphate	2.68	7.94 [OECD 305 C]	Low
triphenyl phosphate	4.63	190.55	Low
Epoxy resin (MW ≤ 700)	3	31	Low
Cashew, nutshell liq.	>4.78	-	High
2,2-bis(acryloyloxymethyl) butyl acrylate	0.67	-	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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexaboron dizinc undecaoxide, bis-[4-(2,3-epoxipropoxi)phenyl] propane)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexaboron dizinc undecaoxide, bis-[4-(2,3-epoxipropoxi)phenyl] propane)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexaboron dizinc undecaoxide, bis-[4-(2,3-epoxipropoxi)phenyl] propane)
Transport hazard class(es)	9	9	9
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Marine pollutant substances	Not applicable.	(hexaboron dizinc undecaoxide)	Not applicable.

Additional information

- UN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

- 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 guiding 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

Section 15. Regulatory information

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

Circular no. 05/1999/TT-BYT

Ingredient name	Category	Notes
hexaboron dizinc undecaoxide	Category 2	-
1-chloro-2,3-epoxypropane	Category 2	-

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

Decree No. 113/2017/ND-CP - Chemicals requiring a chemical incident prevention and response plan

Ingredient name	%	Reportable quantity
propylene oxide	≤0.1	Threshold of largest amount at any time that can be stored without plan: 5000 kg
epichlorohydrin	≤0.1	Threshold of largest amount at any time that can be stored without plan: 5000 kg

Toxic classification (TCVN : 3164-79)

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

History

Date of issue/Date of revision	: 24 November 2025
Date of previous issue	: 8/22/2025
Version	: 1.02
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

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.