# **SAFETY DATA SHEET**

ppg

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013

Date of issue/Date of revision 12 September 2022

Version 1.02

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Section 1. Chemical product and company identification		
Product code	: 000001087581	
Product name	: NOVAGUARD 615/650 HARDENER	
Product name	: NOVAGUARD 615/650 HARDENER	
Other means of identification	: 00330614	
Product type	: Liquid.	
Relevant identified uses of t	he substance or mixture and uses advised against	
Product use	: Professional applications, Used by spraying.	
Use of the substance/ mixture	: Coating.	
Uses advised against	: Not applicable.	
Supplier's details	: PPG Coatings (Kunshan) Co., Ltd 53 Jinyang Road, Lujia Town, 215331 Kunshan City, Jiangsu Province, P.R. China Tel: 86 512 57678859 Fax: 86 512 57678857	
Emergency telephone number (with hours of operation)	: 00 86 532 83889090	

# Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

#### Emergency overview

Liquid.

Colorless.

Amine-like.

Harmful if swallowed, in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Causes serious eye damage.

Toxic to aquatic life with long lasting effects.

IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Immediately call a POISON CENTER or doctor.

See Section 12 for environmental precautions.

# Section 2. Hazards identification

	3 Identification
Classification of the substance or mixture	<ul> <li>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1B SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 7.5% Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 9.5% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 65.4%</li> <li>Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 21.4%</li> </ul>
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	<ul> <li>Harmful if swallowed, in contact with skin or if inhaled.</li> <li>Causes severe skin burns and eye damage.</li> <li>May cause an allergic skin reaction.</li> <li>Causes serious eye damage.</li> <li>Toxic to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	
Prevention	: Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing 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	: Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Product name NOVAGUARD 615/650 HARDENER

# Section 2. Hazards identification

Physical and chemical hazards	: No known significant effects or critical hazards.
Health hazards	: Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage.
Symptoms related to the	physical, chemical and toxicological characteristics
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 exposure			
<u>Short term exposure</u>	Short term exposure		
Potential immediate effects	: Not available.		
Potential delayed effects	: Not available.		
Long term exposure			
Potential immediate effects	: Not available.		
Potential delayed effects	: Not available.		
Environmental hazards	: Toxic to aquatic life with long lasting effects.		
Other hazards which do not result in classification	: None known.		

# Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: 00330614

# CAS number/other identifiers

CAS number	: Not applicable.

### Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Propylidynetrimethanol, propoxylated, reaction products with ammonia	40 - <70	39423-51-3
3-aminomethyl-3,5,5-trimethylcyclohexylamine	10 - <25	2855-13-2
benzyl alcohol	10 - <25	100-51-6
Epoxy Amine Resin	1 - <10	SUB114180
2,4,6-tris(dimethylaminomethyl)phenol	1 - <10	90-72-2
salicylic acid	1 - <10	69-72-7

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.

SUB codes represent substances without registered CAS Numbers.

### Section 4. First aid measures

#### Description of necessary first aid measures

Eye contact	<ul> <li>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.</li> </ul>
Inhalation	<ul> <li>Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.</li> </ul>
Skin contact	: 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	: Harmful if inhaled.	
Skin contact	: Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.	
Ingestion	: Harmful if swallowed.	
Over-exposure signs/symp	<u>toms</u>	
Eye contact	: Adverse symptoms may include the following: pain watering redness	
Inhalation	: No specific data.	
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur	
Ingestion	: Adverse symptoms may include the following: stomach pains	

# Section 4. First aid measures

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.

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 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 nitrogen 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	<ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</li> </ul>

# Section 6. Accidental release measures

Personal precautions, protecti	ve 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".

### 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. Collect spillage.
Methods and materials for c	<u>ont</u>	ainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mor 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
 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. Avoid release to the environment. 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.

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 None.

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# Section 8. Exposure controls/personal protection

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Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.
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 measur	<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 protection	1	Chemical splash goggles and face shield.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	1	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**

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Colorless.
Odor	: Amine-like.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 114°C (237.2°F)
Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.3% Upper: 13% (benzyl alcohol)
Relative density	: 0.98
Solubility	: Insoluble in the following materials: cold water.
Viscosity	: Kinematic (40°C): >21 mm²/s
Viscosity	: 30 - <40 s (ISO 6mm)

# 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 nitrogen oxides

# Section 11. Toxicological information

#### Information on toxicological effects

Product/ingredient name	Result	Species	Dose	Exposure
Propylidynetrimethanol, propoxylated, reaction products with ammonia	LD50 Dermal	Rabbit	0.4 g/kg	-
	LD50 Oral	Rat	0.22 g/kg	-
3-aminomethyl-	LC50 Inhalation Dusts	Rat	>5.01 mg/l	4 hours
3,5,5-trimethylcyclohexylamine	and mists			
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1030 mg/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-

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# Section 11. Toxicological information

	LD50 Oral	Rat	1.23 g/kg	-	
2,4,6-tris(dimethylaminomethyl)	LD50 Dermal	Rabbit	1.28 g/kg	-	
phenol					
	LD50 Dermal	Rat	1280 mg/kg	-	
	LD50 Oral	Rat	1200 mg/kg	-	
salicylic acid	LD50 Oral	Rat	0.891 g/kg	-	

Irritation/Corrosion

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

#### Sensitization

••••••	Route of exposure	Species	Result
Aminomethyl- 3,5,5-trimethylcyclohexylamine	skin	Guinea pig	Sensitizing

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

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

Not available.

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

Not available.

#### **Aspiration hazard**

Name	Result
benzyl alcohol	ASPIRATION HAZARD - Category 2

# Information on the likely : Not available.

routes of exposure		
Potential acute health effects		
Eye contact	Causes serious eye damage.	
Inhalation	Harmful if inhaled.	
Skin contact	Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.	
Ingestion	Harmful if swallowed.	

# Section 11. Toxicological information

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Symptoms related to the phy	<u>/sic</u>	cal, chemical and toxicological characteristics		
Eye contact	:	Adverse symptoms may include the following: pain watering redness		
Inhalation	1	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 effect	<u>cts</u>	and also chronic effects from short and long term exposure		
Short term exposure				
Potential immediate effects	:	Not available.		
Potential delayed effects	:	Not available.		
Long term exposure				
Potential immediate effects	:	Not available.		
Potential delayed effects	:	Not available.		
Potential chronic health effects				
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.		
Carcinogenicity	:	No known significant effects or critical hazards.		
Mutagenicity	:	No known significant effects or critical hazards.		
Reproductive toxicity	:	No known significant effects or critical hazards.		

#### Numerical measures of 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)
WOVAGUARD 615/650 HARDENER Propylidynetrimethanol, propoxylated, reaction products with ammonia	711.5 500	1317.9 1100	N/A N/A	N/A N/A	3.7 N/A
3-aminomethyl-3,5,5-trimethylcyclohexylamine benzyl alcohol 2,4,6-tris(dimethylaminomethyl)phenol salicylic acid	1030 1230 1200 891	1100 2000 1280 N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A 1.5 N/A N/A

#### **Other information**

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### Section 11. Toxicological information

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.

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
2,4,6-tris (dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours
	Acute EC50 1147.57 mg/l Fresh water	Daphnia - Daphnia longispina - Neonate	48 hours
	Chronic NOEC 5.6 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days

#### Persistence/degradability

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

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Propylidynetrimethanol, propoxylated, reaction products with ammonia	-1.13	-	low
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	0.99	-	low
benzyl alcohol	0.87	-	low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	low
salicylic acid	2.21 to 2.26	-	low

#### Mobility in soil

#### Soil/water partition : Not available. coefficient (K<sub>oc</sub>)

#### 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

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### Section 13. Disposal considerations

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

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	China	UN	IMDG	ΙΑΤΑ
UN number	UN3066	UN3066	UN3066	UN3066
UN proper shipping name	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	8	8	8	8
Packing group	11	11	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(Polyoxy propylene diamine)	Not applicable.

#### **Additional information**

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

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

Transport in bulk according		Not applicable.
to IMO instruments		

# Section 15. Regulatory information

China inventory (IECSC)	: All components are listed or exempted.
References	<ul> <li>Production Safety Law of the People's Republic of China Code of Occupational Disease Prevention of the People's Republic of China Environmental Protection Law of the People's Republic of China Fire Control Law of the People's Republic of China Regulations on the Control over Safety of Dangerous Chemicals Occupational exposure limits for hazardous agents in the workplace chemical hazardous agents (GBZ2.1) General rule for classification and hazard communication of chemicals (GB13690) Safety data sheet for chemical products - Content and order of sections (GB/</li> </ul>

Product name NOVAGUARD 615/650 HARDENER

### Section 15. Regulatory information

#### T16483)

Guidance on the compilation of safety data sheet for chemical products (GB/ T17519)

General rule for preparation of precautionary label for chemicals (GB15258) Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB30000.2-29)

### Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 12 September 2022
Date of previous issue	: 5/5/2022
Version	: 1.02
	EHS
Key to abbreviations	<ul> <li>ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway</li> <li>ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road</li> <li>ATE = Acute Toxicity Estimate</li> <li>BCF = Bioconcentration Factor</li> <li>GHS = Globally Harmonized System of Classification and Labelling of Chemicals</li> <li>IATA = International Air Transport Association</li> <li>IMDG = International Maritime Dangerous Goods</li> <li>LogPow = logarithm of the octanol/water partition coefficient</li> <li>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)</li> <li>RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail</li> <li>UN = United Nations</li> </ul>

**V** 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.