# **SAFETY DATA SHEET**



Date of issue/Date of revision16 January 2020Version 4.01

Section 1. Identification			
Product code	: 00327075		
Product name	: SIGMARINE 24 DARK GREY		
Other means of identification	: Not available.		
Product type	: Liquid.		
Relevant identified uses of	Relevant identified uses of the substance or mixture and uses advised against		
Product use	: Coating. Paint. Painting-related materials.		
Supplier's details	: PPG Coatings (Thailand) Co., Ltd. 15 Rama 9 Road, Kwaeng Huamark, Khet Bangkapi, Bangkok 10240 Thailand T: 662-319-4190 #224 F: 662-319-4189		
Emergency telephone number (with hours of operation)	: CHEMTREC 001-800-13-203-9987 (CCN 17704)		

### Section 2. Hazards identification

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	ACUTE TOXICITY (dermal) - Category 5
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 2
	AQUATIC HAZARD (ACUTE) - Category 3
	AQUATIC HAZARD (LONG-TERM) - Category 3
	Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 28.3% (Oral), 46.3% (Dermal), 83.2% (Inhalation)
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 38.2%
GHS label elements	
Hazard pictograms	

### Section 2. Hazards identification

Signal word	:	Warning
Hazard statements	:	Flammable liquid and vapor. May be harmful in contact with skin. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)) Harmful to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling.
Response	:	Get medical attention if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Call a POISON CENTER or physician if you feel unwell. 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 attention.
Storage	:	Store in a well-ventilated place. Keep cool.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not		Prolonged or repeated contact may dry skin and cause irritation.

result in classification

### Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

#### CAS number/other identifiers

CAS number : Not applicable.		
Ingredient name	%	CAS number
calcium carbonate	25- <50	471-34-1
Naphtha (petroleum), hydrotreated heavy	10- <20	64742-48-9
Naphtha (petroleum), hydrodesulfurized heavy	5- <10	64742-82-1
trizinc bis(orthophosphate)	0.3 - <1	7779-90-0
2-ethylhexanoic acid, zirconium salt	0.3 - <1	22464-99-9
nonane	0.1- <0.3	111-84-2
octane	0.1- <0.3	111-65-9
2-butanone oxime	<0.1	96-29-7

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.

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.

### Section 3. Composition/information on ingredients

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 fi	r <u>st aid measures</u>
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.
Inhalation	<ul> <li>Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.</li> </ul>
Skin contact	<ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.</li> </ul>
Ingestion	: 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

most important symptoms/e	<u>s, acute and delayed</u>	
Potential acute health effe		
Eye contact	Causes serious eye irritation.	
Inhalation	No known significant effects or critical hazards.	
Skin contact	May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritatio	'n.
Ingestion	No known significant effects or critical hazards.	
Over-exposure signs/symp	<u>i</u>	
Eye contact	Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	No specific data.	
Skin contact	Adverse symptoms may include the following: irritation dryness cracking	
Ingestion	No specific data.	
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 glow	

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
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 : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from personnel entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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.

#### 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<br/>explosion-proof equipment. Dilute with water and mop up if water-soluble.<br/>Alternatively, or if water-insoluble, absorb with an inert dry material and place in an<br/>appropriate waste disposal container. Dispose of via a licensed waste disposal<br/>contractor.

### Section 6. Accidental release measures

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. 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). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.
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 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. Eliminate all ignition sources. Separate from oxidizing materials. 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
alcium carbonate			ACGIH TLV (United States).
parolam ourbonate			TWA: 3 mg/m <sup>3</sup> Form: Respirable
			TWA: 10 mg/m <sup>3</sup> Form: Total dust
2-ethylhexanoic acid, zirconiu	um	salt	Ministry of Labor (Thailand, 8/2017).
			TWA: 5 mg/m <sup>3</sup> , (as Zr) 8 hours.
nonane			ACGIH TLV (United States, 3/2019). TWA: 200 ppm 8 hours.
			TWA: 200 ppm 6 hours. TWA: 1050 mg/m <sup>3</sup> 8 hours.
octane			Ministry of Labor (Thailand, 8/2017).
			TWA: 500 ppm 8 hours.
Recommended monitoring procedures	:		hay be required to determine the effectiveness sures and/or the necessity to use respiratory uld be made to appropriate monitoring ance documents for methods for the
Appropriate engineering controls	:	or other engineering controls to keep v below any recommended or statutory	se process enclosures, local exhaust ventilation worker exposure to airborne contaminants limits. The engineering controls also need to s below any lower explosive limits. Use
Environmental exposure controls	:	they comply with the requirements of e	cess equipment should be checked to ensure environmental protection legislation. In some eering modifications to the process equipment to acceptable levels.
Individual protection measur	<u>'es</u>		
Hygiene measures	:	eating, smoking and using the lavatory Appropriate techniques should be use	d to remove potentially contaminated clothing. using. Ensure that eyewash stations and
Eye protection	:	Chemical splash goggles.	
Skin protection			
Hand protection	:	be worn at all times when handling che this is necessary. Considering the par check during use that the gloves are s should be noted that the time to break for different glove manufacturers. In the	complying with an approved standard should emical products if a risk assessment indicates ameters specified by the glove manufacturer, till retaining their protective properties. It through for any glove material may be different ne case of mixtures, consisting of several gloves cannot be accurately estimated.

### Section 8. Exposure controls/personal protection

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Gloves	: For prolonged or repeated handling, use the following type of gloves:
	Recommended: natural rubber (latex), nitrile 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
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	: Gray.
Odor	: Aromatic.
Odor threshold	: Not available.
рН	: insoluble in water.
Melting point	: May start to solidify at the following temperature: <-60°C (<-76°F) This is based on data for the following ingredient: Naphtha (petroleum), hydrotreated heavy. Weighted average: -66°C (-86.8°F)
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 39°C (102.2°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: liquid
Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.4% Upper: 7.6% (Naphtha (petroleum), hydrotreated heavy)
Vapor pressure	: Highest known value: 0.5 kPa (3.8 mm Hg) (at 20°C) (Naphtha (petroleum), hydrodesulfurized heavy). Weighted average: 0.29 kPa (2.18 mm Hg) (at 20°C)
Relative density	: 1.03
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n- octanol/water	: Not applicable.
Auto-ignition temperature	: Lowest known value: 280 to 470°C (536 to 878°F) (Naphtha (petroleum), hydrotreated heavy).
Decomposition temperature	: Stable under recommended storage and handling conditions (see Section 7).
Viscosity	: Kinematic (40°C): >0.21 cm <sup>2</sup> /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	<ul> <li>Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides</li> </ul>

### Section 11. Toxicological information

#### Information on toxicological effects

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Product/ingredient name	Result	Species	Dose	Exposure
zalcium carbonate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	6450 mg/kg	-
Naphtha (petroleum), hydrotreated	LD50 Oral	Rat	>6 g/kg	-
heavy				
trizinc bis(orthophosphate)	LC50 Inhalation Dusts and mists	Rat	>5.7 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
2-ethylhexanoic acid, zirconium salt	LD50 Dermal	Rabbit	>5 g/kg	-
-	LD50 Oral	Rat	>5 g/kg	-
nonane	LC50 Inhalation Gas.	Rat	3200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	16790 mg/m <sup>3</sup>	4 hours
octane	LC50 Inhalation Gas.	Rat	25260 ppm	4 hours
	LC50 Inhalation Vapor	Rat	118000 mg/	4 hours
			m³	
2-butanone oxime	LD50 Oral	Rat	930 mg/kg	-

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

Irritation/Corrosion	
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	
Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.

### Section 11. Toxicological information

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

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

Name	•••	Route of exposure	Target organs
Naphtha (petroleum), hydrotreated heavy	Category 3	Not applicable.	Respiratory tract irritation
Naphtha (petroleum), hydrodesulfurized heavy	Category 3	Not applicable.	Narcotic effects
nonane	Category 3	Not applicable.	Narcotic effects
octane	Category 3	Not applicable.	Narcotic effects

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

Name		Route of exposure	Target organs
Naphtha (petroleum), hydrodesulfurized heavy	Category 1	Not determined	central nervous system (CNS)

#### Aspiration hazard

Name	Result
Naphtha (petroleum), hydrotreated heavy	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrodesulfurized heavy	ASPIRATION HAZARD - Category 1
nonane	ASPIRATION HAZARD - Category 1
octane	ASPIRATION HAZARD - Category 1

Information on the likely	: Not available.
routes of exposure	

Potential acute health effects

: Causes serious eye irritation.
: No known significant effects or critical hazards.
: May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation.
: 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

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### Section 11. Toxicological information

Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation dryness cracking
Ingestion	No specific data.

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

Bolayou and minioulate energy	to and also enrolle encets 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 eff	ects
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.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

#### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Dermal	3636.04 mg/kg

#### Other information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption

FIGURE Hame SIGWARINE 24 DARK GRET

### Section 11. Toxicological information

through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine, 2-butanone oxime, cobalt bis (2-ethylhexanoate). May produce an allergic reaction.

### Section 12. Ecological information

Т	oxi	C	ity

Product/ingredient name	Result	Species	Exposure
calcium carbonate	Acute EC10 >14 mg/l	Algae	72 hours
trizinc bis(orthophosphate)	Acute LC50 0.112 mg/l	Fish	96 hours
	Chronic NOEC 0.026 mg/l	Fish	30 days
2-ethylhexanoic acid, zirconium salt	Acute LC50 >100 mg/l	Fish	96 hours

#### Conclusion/Summary

: There are no data available on the mixture itself.

#### Persistence/degradability

Not available.		
Conclusion/Summary	1	There are no data available on the mixture itself.

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
nonane	5.65	-	high
octane	5.18	-	high
2-butanone oxime	0.63	5.01	low

#### Mobility in soil

Soil/water partition coefficient (Koc)	: 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
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### Section 13. Disposal considerations

retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. 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	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

#### **Additional information**

UN : None identified. : None identified. IMDG

**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.

### Section 15. Regulatory information

Listed

Harmful Chemicals List	1
Safety, health and	1
environmental regulations	

No known specific national and/or regional regulations applicable to this product (including its ingredients).

#### specific for the product **International regulations**

#### **Montreal Protocol**

Not listed.

### Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 16 January 2020
Date of previous issue	: 10/11/2019
Version	: 4.01
Prepared by	: 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>

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.