

# SAFETY DATA SHEET



Date of issue/Date of revision 27 February 2024

Version1

## Section 1. Identification

**Product code** : 00468616  
**Product name** : STEELGUARD 951 BASE LIGHTGREY  
**CAS number** : Not applicable.  
**EC number** : Mixture.  
**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

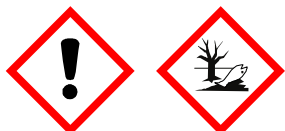
**Emergency telephone number (with hours of operation)** : CHEMTREC +(84)-444581938 (CCN 17704)

## Section 2. Hazards identification

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 5  
ACUTE TOXICITY (dermal) - Category 5  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
AQUATIC TOXICITY (ACUTE) - Category 2  
AQUATIC TOXICITY (CHRONIC) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 5.8%  
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 62.8%  
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.9%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

## Section 2. Hazards identification

- Hazard statements** : May be harmful if swallowed or in contact with skin.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Toxic to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : Wear protective gloves. Wear 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 SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it 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. If eye irritation persists: Get medical advice or attention.
- Storage** : Not applicable.
- 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** : Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F).

## 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	%
Polyphosphoric acids, ammonium salts	68333-79-9	[N3H12O6P2]n	≥25 - ≤50
bisphenol F diglycidyl ether, isomer mixture	SUB140549	CHO	≥10 - ≤19
hexamethylene diacrylate	13048-33-4	C12-H18-O4	≤10
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	9003-36-5	(C6-H6-O. C3-H5-Cl-O.C- H2-O)x	≤10
phosphorous oxychloride, reaction products with propylene oxide	1244733-77-4	C9H18Cl3O4P	≤10
Phenol, styrenated	61788-44-1	C88H88O4	≤8.9
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	(C6H6O.CH2O)x	≤3
Dodecanedioic acid, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane], (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol], nonanedioic acid and 2,2'-oxybis[ethanol] carbon	139651-91-5	-	≤3
	7440-44-0	C	≤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** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed.

#### Over-exposure signs/symptoms

- 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  
redness
- Ingestion** : No specific data.

### 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. 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  
phosphorus oxides  
halogenated compounds  
metal oxide/oxides  
Formaldehyde.

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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.

## Section 6. Accidental release measures

- 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

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. 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.

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.

- 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. 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
carbon	<b>Ministry of Health (Viet Nam, 6/2019). [Graphite]</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: respirable dust TWA: 2 mg/m <sup>3</sup> 8 hours. Form: total dust concentration

## Section 8. Exposure controls/personal protection

- 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** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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** : Not available.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)

## Section 9. Physical and chemical properties

**Flash point** : Closed cup: Not applicable.

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Not available.

**Vapor pressure** : Not available.

**Vapor density** : Not available.

**Relative density** : 1.54

**Solubility(ies)** :

Media	Result
cold water	Not soluble

**Partition coefficient: n-octanol/water** : Not applicable.

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

**Decomposition temperature** : Not available.

**Viscosity** : Kinematic (40°C): >21 mm<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** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides phosphorus oxides halogenated compounds Formaldehyde. metal oxide/oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Polyphosphoric acids, ammonium salts	LD50 Oral	Rat	4.74 g/kg	-
bisphenol F diglycidyl ether, isomer mixture	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
hexamethylene diacrylate	LD50 Dermal	Rabbit	3.65 g/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Formaldehyde, oligomeric	LD50 Oral	Rat	>10000 mg/kg	-

**Section 11. Toxicological information**

reaction products with 1-chloro-2,3-epoxypropane and phenol phosphorous oxychloride, reaction products with propylene oxide	LC50 Inhalation Dusts and mists	Rat	>7 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	630 to 2000 mg/kg	-
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	3550 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**

Product/ingredient name	Route of exposure	Species	Result
hexamethylene diacrylate	skin	Guinea pig	Sensitizing
Phenol, styrenated	skin	Mouse	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**

**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
carbon	Category 3	-	Respiratory tract irritation

**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.



## Section 11. Toxicological information

- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

- 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  
redness
- Ingestion** : No specific data.

### 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** : 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

Route	ATE value
Oral	3521.79 mg/kg
Dermal	4119.51 mg/kg

#### **Other information** :

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. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C ( 140F). 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
Polyphosphoric acids, ammonium salts bisphenol F diglycidyl ether, isomer mixture	Acute EC50 730.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	EC50 >1.8 mg/l	Algae	72 hours
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol phosphorous oxychloride, reaction products with propylene oxide	EC50 >1000 mg/l	Daphnia	48 hours
	LC50 2.54 mg/l	Fish	96 hours
	NOEC 0.3 mg/l	Daphnia	21 days
	Acute LC50 2.54 mg/l	Fish	96 hours
Phenol, styrenated	EC50 82 mg/l	Algae	72 hours
	EC50 131 mg/l LC50 51 mg/l NOEC 32 mg/l Acute EC50 3.8 mg/l	Daphnia Fish Daphnia Daphnia	48 hours 96 hours 48 hours 48 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bisphenol F diglycidyl ether, isomer mixture	-	0 % - Not readily - 28 days	-	-
Phenol, styrenated	OECD 301F	7 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bisphenol F diglycidyl ether, isomer mixture	-	-	Not readily
Phenol, styrenated	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bisphenol F diglycidyl ether, isomer mixture	3.6	-	Low
hexamethylene diacrylate	2.81	-	Low
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	-	Low
phosphorous oxychloride, reaction products with propylene oxide	2.68	0.8 to 14	Low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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
<b>UN number</b>	UN3082	UN3082	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F diglycidyl ether, isomer mixture, hexamethylene diacrylate)
<b>Transport hazard class(es)</b>	9	9	9
<b>Packing group</b>	III	III	III
<b>Environmental hazards</b>	Yes.	Yes.	Yes.
<b>Marine pollutant substances</b>	Not applicable.	(bisphenol F diglycidyl ether, isomer mixture)	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** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

**Toxic classification (TCVN 3164-79)** : 3

### 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** : 27 February 2024

**Date of previous issue** : No previous validation

**Version** : 1

**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.