# SAFETY DATA SHEET

**Date of issue/Date of revision** 21 February 2020
**Version** 3.05

## Section 1. Identification

**Product code** : 00334102
**Product name** : AMERCOAT 237M DARK GRAY RESIN
**Product type** : Liquid.

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

**Identified uses**

Coating. Paints. Painting-related materials.

**Supplier's details** : PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737

**Emergency telephone number (with hours of operation)** : CHEMTREC +(65)-31581349 (CCN 17704)

## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**GHS label elements, including precautionary statements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapor.
Causes serious eye irritation.
Causes damage to organs through prolonged or repeated exposure.

**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. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

# Section 2. Hazards identification

**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 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 result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**CAS number/other identifiers**

**CAS number** : Not applicable.

**EC number** : Mixture.

| Ingredient name | % | CAS number |
|---|---|---|
| crystalline silica, respirable powder (<10 microns) | 10 - <20 | 14808-60-7 |
| xylene | 5 - <10 | 1330-20-7 |
| butan-1-ol | 1 - <3 | 71-36-3 |
| ethylbenzene | 1 - <3 | 100-41-4 |
| N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) | 0.1 - <0.3 | 123-26-2 |

**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** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**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.

# Section 4. First aid measures

**Skin contact** : Defatting to the skin. May cause skin dryness and irritation.

**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** : 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.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use dry chemical, $CO_2$, 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.

**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 personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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).

## Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. 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

**Protective measures** : 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

# Section 7. Handling and storage

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** : Do not store above the following temperature: 50°C (122°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 |
|---|---|
| crystalline silica, respirable powder (<10 microns) | **Workplace Safety and Health Act (Singapore, 2/2006).**<br>PEL (long term): 0.1 mg/m³ 8 hours. Form: Respirable Dust |
| xylene | **Workplace Safety and Health Act (Singapore, 2/2006).**<br>PEL (short term): 651 mg/m³ 15 minutes.<br>PEL (short term): 150 ppm 15 minutes.<br>PEL (long term): 434 mg/m³ 8 hours.<br>PEL (long term): 100 ppm 8 hours. |
| butan-1-ol | **Workplace Safety and Health Act (Singapore, 2/2006).**<br>PEL (short term): 152 mg/m³ 15 minutes.<br>PEL (short term): 50 ppm 15 minutes. |
| ethylbenzene | **Workplace Safety and Health Act (Singapore, 2/2006).**<br>PEL (short term): 543 mg/m³ 15 minutes.<br>PEL (short term): 125 ppm 15 minutes.<br>PEL (long term): 434 mg/m³ 8 hours.<br>PEL (long term): 100 ppm 8 hours. |
| N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) | **ACGIH TLV (United States).**<br>TWA: 3 mg/m³ Form: Respirable<br>TWA: 10 mg/m³ Form: Total dust |

# Section 8. Exposure controls/personal protection

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

**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. 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** : For prolonged or repeated handling, use the following type of gloves:

May be used: nitrile rubber
Recommended: polyvinyl alcohol (PVA), Viton®, neoprene, butyl rubber, PVC

**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.

## Section 8. Exposure controls/personal protection

**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** : Dark grey.

**Odor** : Characteristic.

**pH** : insoluble in water.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 29.44°C (85°F)

**Evaporation rate** : 0.62 (butyl acetate = 1)

**Flammability (solid, gas)** : liquid

**Vapor pressure** : 0.8 kPa (6.1 mm Hg) (at 20°C)

**Vapor density** : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.49 (Air = 1)

**Relative density** : 1.94

**Solubility** : Insoluble in the following materials: cold water.

**Auto-ignition temperature** : Lowest known value: 355°C (671°F) (butan-1-ol).

**Viscosity** : Kinematic (40°C (104°F)): >0.21 $cm^2/s$ (>21 cSt)

## 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 metal oxide/oxides

# Section 11. Toxicological information

## Information on toxicological effects

### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| xylene | LD50 Dermal | Rabbit | >1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| butan-1-ol | LC50 Inhalation Vapor | Rat | 24000 mg/m³ | 4 hours |
| | LC50 Inhalation Vapor | Rat | 8000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | 3400 mg/kg | - |
| | LD50 Oral | Rat | 790 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide) | LC50 Inhalation Dusts and mists | Rat | >5.11 mg/l | 4 hours |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |

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

### Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |

**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.

### 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)

# Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| xylene | Category 3 | Not applicable. | Respiratory tract irritation |
| butan-1-ol | Category 3<br>Category 3 | Not applicable.<br>Not applicable. | Narcotic effects<br>Respiratory tract irritation |

## Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| crystalline silica, respirable powder (<10 microns) | Category 1 | Inhalation | Not determined |
| ethylbenzene | Category 2 | Not determined | hearing organs |

## Aspiration hazard

| Name | Result |
|---|---|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

**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** : Defatting to the skin. May cause skin dryness and irritation.

**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** : 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

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

# Section 11. Toxicological information

## Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

## Potential chronic health effects

**General** : Causes 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.

**Developmental effects** : 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 |
|---|---|
| Oral | 27427.82 mg/kg |
| Dermal | 9142.18 mg/kg |
| Inhalation (vapors) | 74.04 mg/l |
| Inhalation (dusts and mists) | 9.52 mg/l |

**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 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 N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide). May produce an allergic reaction.

# Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| butan-1-ol | Acute LC50 1376 mg/l | Fish | 96 hours |
| ethylbenzene | Acute LC50 150 to 200 mg/l Fresh water | Fish | 96 hours |
| N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide) | Acute EC50 29 to 43 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 94 mg/l | Daphnia - Daphnia magna | 48 hours |

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

## Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide) | - | 63 % - 28 days | - | - |

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

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |
| N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide) | - | - | Readily |

## Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| xylene | 3.16 | 7.4 to 18.5 | low |
| butan-1-ol | 0.88 | - | low |
| ethylbenzene | 3.15 | 79.43 | low |
| N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide) | >6 | - | high |

## Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : 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. 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 | IATA |
|---|---|---|---|
| **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.
**IMDG** :None identified.
**IATA** :None identified.

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

# Section 15. Regulatory information

## Singapore - hazardous chemicals under government control

None.

## International regulations

## Montreal Protocol

Not listed.

# Section 16. Other information

## History

| | | |
|---|---|---|
| **Date of issue/Date of revision** | : | 21 February 2020 |
| **Date of previous issue** | : | 12/4/2019 |
| **Version** | : | 3.05 |
| **Prepared by** | : | EHS |
| **Key to abbreviations** | : | ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>UN = United Nations |

**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.**