SAFETY DATA SHEET



Date of issue/Date of revision25 October 2023Version 8

Section 1. Identification			
Product code	: 00280672		
Product name	: AMERCOAT 370 BASE OXIDE RED		
Product type	: Liquid.		
Relevant identified uses o	Relevant identified uses of the substance or mixture and uses advised against		
Product use	Coating. Professional applications, Used by spraying.		
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	: FLAMMABLE LIQUIDS - Category 2
substance or mixture	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SKIN SENSITIZATION - Category 1
	CARCINOGENICITY - Category 2

GHS label elements, including precautionary statements		
Hazard pictograms		
Signal word	: Danger	
Hazard statements	 Fighly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. 	
Precautionary statements		
Prevention	: Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapor. Wash thoroughly after handling.	

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Section 2. Hazards identification

Response	Exposed or concerned: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF ON SKIN: 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.
Storage	
Disposal	: Not applicable.

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.EC number: Mixture.		
Ingredient name	%	CAS number
butanone	10 - <20	78-93-3
Epoxy Resin (700 <mw<=1100)< td=""><td>5 - <10</td><td>25036-25-3</td></mw<=1100)<>	5 - <10	25036-25-3
4-methylpentan-2-one	3 - <5	108-10-1
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1 - <3	1675-54-3
xylene	1 - <3	1330-20-7
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	0.3 - <1	68609-97-2
Fatty acids, C14-18 and C16-18-unsatd., maleated	0.3 - <1	85711-46-2
maleic anhydride	<0.1	108-31-6

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 necess	ary 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.

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Section 4. First aid measures

Most important symptoms/effects, acute and delayed		
Potential acute health effect	<u>cts</u>	
Eye contact	:	Causes serious eye irritation.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.
<u>Over-exposure signs/symp</u>	oton	<u>15</u>
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	1	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	1	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 gloves.

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	Highly 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 sulfur oxides metal oxide/oxides

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Section 5. Fire-fighting measures

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, 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. 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 cor	tainment 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in 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. Store locked up. 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 limitsWorkplace Safety and Health Act (Singapore, 2/2006).PEL (short term): 885 mg/m³ 15 minutes.PEL (short term): 300 ppm 15 minutes.PEL (long term): 590 mg/m³ 8 hours.PEL (long term): 200 ppm 8 hours.		
butanone			
4-methylpentan-2-one	Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 307 mg/m ³ 15 minutes.		
	PEL (short term): 75 ppm 15 minutes. PEL (long term): 205 mg/m ³ 8 hours. PEL (long term): 50 ppm 8 hours.		
xylene	Workplace Safety and Health Act		

Section 8. Exposure controls/personal protection

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maleic anhydride			(Singapore, 2/2006). [Xylene] PEL (short term): 651 mg/m ³ 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 1 mg/m ³ 8 hours. PEL (long term): 0.25 ppm 8 hours.		
Recommended monitoring procedures	-		ate monitoring standards. Reference to ods for the determination of hazardous		
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 measur	es				
Hygiene measures	:	eating, smoking and using the lavatory Appropriate techniques should be use Contaminated work clothing should no	to remove potentially contaminated clothing be allowed out of the workplace. Wash Ensure that eyewash stations and safety		
Eye/face protection	4	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	:	butyl rubber			
Body protection	:	being performed and the risks involved			

Section 8. Exposure controls/personal protection

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.			
Odor	Characteristic.			
рН	nsoluble in water.			
Boiling point	>37.78°C (>100°F)			
Flash point	Closed cup: -3°C (26.6°F)			
Evaporation rate	Highest known value: 1.7 (4-methylpentan-2-one) Weighted average: 1.29compared with butyl acetate			
Flammability (solid, gas)	liquid			
Vapor pressure	Highest known value: 10.5 kPa (78.8 mm Hg) (at 20°C) (butanone). Weighted average: 5.92 kPa (44.4 mm Hg) (at 20°C)			
Vapor density	Highest known value: 15.4 (Air = 1) (1,2-Benzenedicarboxylic acid, di- C9-11-branched alkyl esters, C10-rich). Weighted average: 4.92 (Air = 1)			
Relative density	1.92			
Colubility/icc)	Media Result			
Solubility(ies)	old water Not soluble			
Auto-ignition temperature	Lowest known value: 404°C (759.2°F) (butanone).			
Viscosity	Kinematic (40°C (104°F)): >21 mm²/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.
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Product name AMERCOAT 370 BASE OXIDE RED

Section 10. Stability and reactivity

Hazardous decomposition	: Depending on conditions, decomposition products may include the following
products	materials: carbon oxides sulfur oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
Epoxy Resin (700 <mw <=1100)</mw 	LD50 Dermal	Rat	>2000 mg/kg	-
,	LD50 Oral	Rat	>2000 mg/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	2.08 g/kg	-
bis-[4-(2,3-epoxipropoxi)	LD50 Dermal	Rabbit	23000 mg/kg	-
phenyl]propane				
	LD50 Oral	Rat	15000 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
-	LD50 Oral	Rat	4.3 g/kg	-
oxirane, mono[LD50 Oral	Rat	17100 mg/kg	-
(C12-14-alkyloxy)methyl]				
derivs.				
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Eyes - Redness of the conjunctivae	Rabbit	0.4	24 hours	-
	Skin - Edema	Rabbit	0.5	4 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
	Skin - Mild irritant	Rabbit	-	4 hours	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

Conclusion/Summary

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

Sensitization

Skin Eyes

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Section 11. Toxicological information

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Product/ingredient name	9	Route of exposure	Species	Result
S-[4-(2,3-epoxipropoxi) phenyl]propane oxirane, mono[(C12-14-alkyloxy)methyl] derivs.		skin skin	Mouse Guinea pig	Sensitizing Sensitizing
Conclusion/Summary				
Skin	:	There are no data a	available on the mixture itself.	
Respiratory	:	There are no data available on the mixture itself.		
Mutagenicity				
Conclusion/Summary	1	There are no data	available on the mixture itself.	
Carcinogenicity				
Conclusion/Summary	1	: There are no data available on the mixture itself.		
Reproductive toxicity				
Conclusion/Summary	1	There are no data	available on the mixture itself.	
Teratogenicity				
Conclusion/Summary	:	There are no data	available on the mixture itself.	
Creatific torget argen toxi	-:+			

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butanone 4-methylpentan-2-one xylene	Category 3 Category 3 Category 3		Narcotic effects Narcotic effects Respiratory tract irritation
Fatty acids, C14-18 and C16-18-unsatd., maleated	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
maleic anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1

Singapore	English (US)	Page:
Skin contac	t	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Inhalation		: 📈 known significant effects or critical hazards.
Eye contact		: Causes serious eye irritation.
Potential acu	<u>te health effects</u>	
Information o routes of exp	· · · · · · · · · · · · · · · · · · ·	: Not available.

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Section 11. Toxicological information

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 redness dryness cracking
Ingestion	: No specific data.
<u>Delayed and immedia</u> <u>Short term exposure</u>	te effects and also chronic effects from short and long term exposure

: Not available.
: Not available.
: Not available.
: Not available.
ects
: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
: No known significant effects or critical hazards.
: 📈 known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
	47973.31 mg/kg 56.48 mg/l 7.7 mg/l

Other information

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Section 11. Toxicological information

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. 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. Avoid contact with skin and clothing.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
-methylpentan-2-one	Acute LC50 >179 mg/l	Fish	96 hours
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - <i>daphnia magna</i>	48 hours
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Chronic NOEC 0.3 mg/l LC50 >100 mg/l	Daphnia Fish	21 days 96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

Persistence/degradability

Product/ingredient name	Test	Result		Dose	Inoculum
✓-methylpentan-2-one	OECD 301F	83 % - Readily - 28	days	-	-
Conclusion/Summary	: There are no c	lata available on the	mixture itse	lf.	
Product/ingredient name	Aquatic half-life		Photolysis	S	Biodegradability
#-methylpentan-2-one bis-[4-(2,3-epoxipropoxi) phenyl]propane	-		-		Readily Not readily
xylene	-		-		Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
butanone 4-methylpentan-2-one xylene oxirane, mono[(C12-14-alkyloxy)methyl] derivs. maleic anhydride	0.3 1.9 3.12 3.77 -2.78	- - 7.4 to 18.5 -	Low Low Low Low

<u>Mobility in soil</u>	
Soil/water partition coefficient (Koc)	: Not available

Other adverse effects

: No known significant effects or critical hazards.

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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	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	II	II
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.

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

International regulations Montreal Protocol Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

History

Section 16. Other information

HISTORY	
Date of issue/Date of revision	: 25 October 2023
Date of previous issue	: 6/19/2020
Version	: 8
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 = Internediate 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

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.