SAFETY DATA SHEET

Date of issue/Date of revision 22 April 2024

Ve

Version1.03

Section 1. Identification

Product code	: 000001190004
Product name	: SIGMASHIELD 880 GF BASE GREY 5177
CAS number	: Not applicable.
EC number	: Mixture.
Other means of identification 00446825	
Product type	: Liquid.
Relevant identified uses of th	e 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	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	SKIN IRRITATION - Category 2
	EYE IRRITATION - Category 2A
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	AQUATIC TOXICITY (ACUTE) - Category 3
	AQUATIC TOXICITY (CHRONIC) - Category 3
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the
	aquatic environment: 54.6%
CHS label elements	
GHS label elements	
Hazard pictograms	
Signal word	: Warning
orginal mora	· · · · · · · · · · · · · · · · · · ·

Section 2. Hazards identification

Hazard statements		Elemmetric liquid and vener
Hazaru statements	1	Flammable liquid and vapor. Causes skin irritation.
		May cause an allergic skin reaction.
		Causes serious eye irritation.
		May cause respiratory irritation.
		Harmful to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	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. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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	:	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
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	:	Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance	/mixture	 Mix

Mixture	Mixture	
---------	---------	--

CAS number/other identifiers			
CAS number: Not applicable.EC number: Mixture.			_
Ingredient name	CAS number	Chemical formula	%
s-[4-(2,3-epoxipropoxi)phenyl]propane Talc , not containing asbestiform fibres	1675-54-3 14807-96-6	C21-H24-O4 3Mg-O.4Si-O2. H2-O	≥10 - <25 ≥10 - ≤25
barium sulfate	7727-43-7	O4-S.Ba	≤9.9
xylene	1330-20-7	C8-H10	≤6.7
Époxy Resin (700 <mw<=1100)< td=""><td>25036-25-3</td><td>(C21H24O4. C15H16O2)x</td><td>≤5</td></mw<=1100)<>	25036-25-3	(C21H24O4. C15H16O2)x	≤5
Phenol, methylstyrenated	68512-30-1	C18H20	≤5
2-methylpropan-1-ol	78-83-1	C4-H10-O	≤2.6
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	C4-H10-O.x (C3-H6-O. C2-H4-O)x.xl2	≤3
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	220926-97-6	CHON	≤1.4

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.

Date of issue 22 April 2024

Product name SIGMASHIELD 880 GF BASE GREY 5177

Section 3. Composition/information on ingredients

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 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.

Most important symptoms/effects, acute and delayed

most important symptoms/e	meets, acute and delayed
Potential acute health effect	<u>ots</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	<u>itoms</u>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.
Indication of immediate med	lical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use 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. 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 nitrogen oxides sulfur oxides halogenated compounds 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

contractor.

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). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for co	nt	ainment 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

Product name SIGMASHIELD 880 GF BASE GREY 5177

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	L	
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. 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

Ingredient name	Exposure limits
ralc , not containing asbestiform fibres	Ministry of Health (Viet Nam, 6/2019). TWA: 3 mg/m ³ 8 hours. Form: inhalable dust TWA: 1 mg/m ³ 8 hours. Form: respirable dust TWA: 2 mg/m ³ 8 hours. Form: total dust concentration
barium sulfate	ACGIH TLV (United States, 1/2023).

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction xylene Ministry of Health (Viet Nam, 6/2019). [xylene] STEL: 300 mg/m³ 15 minutes. TWA: 100 mg/m³ 8 hours. Ministry of Health (Viet Nam, 6/2019). 2-methylpropan-1-ol [butanols] STEL: 250 mg/m³ 15 minutes. TWA: 150 mg/m³ 8 hours. 12-hydroxyoctadecanoic acid, reaction products with ACGIH TLV (United States). 1,3-benzenedimethanamine and hexamethylenediamine TWA: 10 mg/m³ Form: Inhalable particle TWA: 3 mg/m³, (inhalable dust) Form: Respirable particle **Recommended monitoring** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous procedures substances will also be required. Appropriate engineering : Use only with adequate ventilation. Use process enclosures, local exhaust controls 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** 2 Emissions from ventilation or work process equipment should be checked to ensure controls 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** : butyl rubber : Personal protective equipment for the body should be selected based on the task **Body protection** 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.

Section 8. Exposure controls/personal protection

Viet Nam Page: 6/14

Product name SIGMASHIELD 880 GF BASE GREY 5177

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

:	Liquid.
:	Gray.
:	Aromatic. [Slight]
1	Not available.
1	Not applicable.
1	Not available.
:	>37.78°C (>100°F)
:	Closed cup: 37°C (98.6°F)
:	Not available.
1	Not available.
:	Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)
1	Not available.
:	Not available.
4	1.65
	Media Result
•	cold water Not soluble
:	Not applicable.
:	Not available.
:	Not available.
:	Kinematic (room temperature): >400 mm²/s Kinematic (40°C): >21 mm²/s
	> 100 s (ISO 6mm)

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

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 sulfur oxides halogenated compounds metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxi)	LD50 Dermal	Rabbit	23000 mg/kg	-
phenyl]propane				
	LD50 Oral	Rat	15000 mg/kg	-
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Epoxy Resin (700 <mw< td=""><td>LD50 Dermal</td><td>Rat</td><td>>2000 mg/kg</td><td>-</td></mw<>	LD50 Dermal	Rat	>2000 mg/kg	-
<=1100)				
,	LD50 Oral	Rat	>2000 mg/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
oxirane, mono[LD50 Oral	Rat	17100 mg/kg	-
(C12-14-alkyloxy)methyl]			0.0	
derivs.				
12-hydroxyoctadecanoic	LC50 Inhalation Dusts and mists	Rat	3.56 mg/l	4 hours
acid, reaction products with			Ŭ	
1,3-benzenedimethanamine				
and hexamethylenediamine				
	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
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

Skin

: There are no data available on the mixture itself.

Date of issue 22 April 2024

Product name SIGMASHIELD 880 GF BASE GREY 5177

Section 11. Toxicological information

E	Ξv	e	S

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

Sensitization

Product/ingredient name	Route of exposure	Species	Result
bis-[4-(2,3-epoxipropoxi)	skin	Mouse	Sensitizing
phenyl]propane oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	skin	Guinea pig	Sensitizing
Skin	: There are no d	ata available on the mixture itse	elf.
Respiratory	: There are no d	ata available on the mixture itse	elf.
Mutagenicity			
Conclusion/Summary	: There are no d	ata available on the mixture itse	elf.
Carcinogenicity			
Conclusion/Summary	: There are no d	ata available on the mixture itse	elf.
Reproductive toxicity			
Conclusion/Summary	: There are no d	ata available on the mixture itse	elf.
Teratogenicity			
Conclusion/Summary	: There are no d	ata available on the mixture itse	elf.
Specific target organ toxicity (single exposure)			

Name	Category	Route of exposure	Target organs
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
P2-hydroxyoctadecanoic acid, reaction products with1,3-benzenedimethanamine and hexamethylenediamine	Category 2	inhalation	lungs

Aspiration hazard

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 2

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye irritation.
Inhalation	:	May cause respiratory irritation.
Skin contact	:	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Date of issue 22 April 2024

Version 1.03

Product name SIGMASHIELD 880 GF BASE GREY 5177

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	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness 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 : 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 Potential delayed effects : There are no data available on the mixture itself. 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 delayed effects : There are no data available on the mixture itself. Potential chronic health effects : There are no data available on the mixture itself. Potential chronic health effects : There are no data available on the mixture itself. Potential chronic health effects : There are no data available on the mixture itself. Potential chronic health effects : There are no data available on the mixture itself. Potential chronic health effects : There are no data available on the mixture itself. 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.		to and aloo official
effectsPotential delayed effects: There are no data available on the mixture itself.Long term exposurePotential immediate: There are no data available on the mixture itself.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: There are no data available on the mixture itself.Potential chronic health effects: 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.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.	Short term exposure	
Long term exposurePotential 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: There are no data available on the mixture itself.General: 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.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.		: There are no data available on the mixture itself.
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: There are no data available on the mixture itself.General: 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.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.	Potential delayed effects	: There are no data available on the mixture itself.
effects Potential delayed effects : There are no data available on the mixture itself. Potential chronic health effects : 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. Carcinogenicity : No known significant effects or critical hazards. Mutagenicity : No known significant effects or critical hazards.	<u>Long term exposure</u>	
Potential chronic health effectsGeneral: 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.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.		: There are no data available on the mixture itself.
General: 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.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.	Potential delayed effects	: There are no data available on the mixture itself.
or dermatitis.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.	Potential chronic health eff	<u>ects</u>
Mutagenicity : No known significant effects or critical hazards.	General	or dermatitis. Once sensitized, a severe allergic reaction may occur when
• •	Carcinogenicity	: No known significant effects or critical hazards.
Reproductive toxicity : 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
Øral	16939.96 mg/kg
Dermal	6275.09 mg/kg
Inhalation (vapors)	69.81 mg/l
Inhalation (dusts and mists)	8.75 mg/l

Other 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
s-[4-(2,3-epoxipropoxi) phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - <i>daphnia magna</i>	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	LC50 >100 mg/l	Fish	96 hours
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	Acute EC50 >100 mg/l	Algae - Pseudokirchneriella subcapitata (microalgae)	72 hours
	Acute EC50 >100 mg/l	Daphnia - <i>Daphnia magna</i> (Water flea)	48 hours
	Acute LC50 >100 mg/l	Fish - Oncorhynchus mykiss (rainbow trout)	96 hours
	Chronic NOEC 100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC ≥50 mg/l	Daphnia - <i>Daphnia magna</i> (Water flea)	21 days

Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
P2-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	OECD 301D Ready Biodegradability - Closed Bottle Test		eadily - 29 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
bis-[4-(2,3-epoxipropoxi) phenyl]propane xylene	-		-		Not rea	2

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
x ylene	3.12	7.4 to 18.5	Low
Phenol, methylstyrenated	3.627	-	Low
2-methylpropan-1-ol	1	-	Low
oxirane, mono[3.77	-	Low
(C12-14-alkyloxy)methyl]			
derivs.			
12-hydroxyoctadecanoic	>6	-	High
acid, reaction products with			_
1,3-benzenedimethanamine			
and hexamethylenediamine			

Mobility in soil

Soil/water partition

: Not available.

coefficient (Koc)

Product name SIGMASHIELD 880 GF BASE GREY 5177

Date of issue 22 April 2024

Version 1.03

Section 12. Ecological information

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	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	: This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.1.
IMDG	This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.
ΙΑΤΑ	: None identified.
Special prec	autions 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 Product name SIGMASHIELD 880 GF BASE GREY 5177

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).

Circular no. 05/1999/TT-BYT

Ingredient name	Category	Notes
-chloro-2,3-epoxypropane	Category 2	
benzene	Category 1	
toluene	Category 2	
xylene	Category 2	
1,4-dioxane	Category 2	
chloromethane	Category 2	
Formaldehyde, solution	Category 2	
ethylene oxide	Category 2	
1,1'-Biphenyl, chloro derivs.	Category 2	

Toxic classification (TCVN : 4

3164-79)

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 22 April 2024
Date of previous issue	: 4/4/2024
Version	: 1.03
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 = International Air Transport Association IBC = 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.

V Indicates information that has changed from previously issued version.

Notice to reader

Product name SIGMASHIELD 880 GF BASE GREY 5177

Section 16. Other information

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.