SAFETY DATA SHEET



Date of issue	8 February 2024
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Version 1

Section 1. Product and company identification

Product name
Product code
Other means of identification
Product type

- : SIGMASHIELD 880 BASE ALU Y/G
- : 00444799
- : Not available.
 - : Liquid.

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

Identified uses

Coating. Paints. Painting-related materials.

Uses advised against	Reason
Not applicable.	

Supplier's details:	
Supplier	 PPG Industrial do Brasil – Tintas e Vernizes Ltda Via Anhanguera KM 106, Bairro Sao Judas Tadeu Sumare / SP, Brasil 55 19 2103-6000 (Recepção e Portaria)
Email address:	: HazComLatam@ppg.com
Emergency telephone number	: 0800 707 1767 / 0800 707 7022 – Empresa Suatrans Cotec 0800 14 8110 – CEATOX - Centro de Assistência Toxicológica

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
	GERM CELL MUTAGENICITY - Category 2
	CARCINOGENICITY - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	AQUATIC HAZARD (ACUTE) - Category 3
	AQUATIC HAZARD (LONG-TERM) - Category 3
Target organs	 Contains material which causes damage to the following organs: brain, central nervous system (CNS), eye, lens or cornea.
	Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, cardiovascular system, upper respiratory tract, skin.

	• • •	
Signal word	Varning	
Hazard statements	Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing genetic defects. Suspected of causing cancer. Harmful to aquatic life with long lasting effects.	
Precautionary statements		
Prevention	Obtain special instructions before use. Wear protective gloves, protective clothin and eye or face protection. Keep away from heat, hot surfaces, sparks, open lames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid release to the environment. Avoid breathing vapor. Wa horoughly after handling.	t
Response	F exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing ar vash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or ash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with vater 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 in a well-ventilated place. Keep container tightly closed. 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
Other means of	: Not available.
identification	

CAS number/other identifiers

CAS number : Not applicable.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
bis-[4-(2,3-epoxipropoxi)phenyl]propane	20 - <30	1675-54-3
Talc , not containing asbestiform fibres	12.5 - <15	14807-96-6
Aluminium powder (stabilized)	5 - <7	7429-90-5
Epoxy Resin (700 <mw<=1100)< td=""><td>3 - <5</td><td>25036-25-3</td></mw<=1100)<>	3 - <5	25036-25-3
Phenol, methylstyrenated	3 - <5	68512-30-1
xylene	3 - <5	1330-20-7
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	3 - <5	64742-48-9
2-methylpropan-1-ol	2 - <3	78-83-1
2,3-epoxypropyl neodecanoate	2 - <3	26761-45-5
12-hydroxyoctadecanoic acid, reaction products with	1 - <2	220926-97-6
1,3-benzenedimethanamine and hexamethylenediamine		
ethylbenzene	0.5 - <1	100-41-4

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.
Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician Specific treatments	 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. 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.
Potential acute health effect	t <u>s</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.

See toxicological information (Section 11)

SIGMASHIELD 880 BASE ALU Y/G

Date of issue

1

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

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.
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Section 7. Handling and storage

Precautions for safe handling	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. 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.
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 limits
Talc , not containing asbestiform fibres	ACGIH TLV (United States, 1/2023).
Aluminium powder (stabilized)	TWA: 2 mg/m ³ 8 hours. Form: Respirable ACGIH TLV (United States, 1/2023).
	[Aluminum, metal and insoluble
	compounds]
	TWA: 1 mg/m ³ 8 hours. Form: Respirable
	fraction
xylene	Ministry of Labor and Employment (Brazil,
	11/2001). [Xylenes (o-, m-, p- isomers)]
	TWA: 340 mg/m ³ 8 hours.
	English (US) South America 5/15

Section 8. Exposu	re controls/personal pro	otection
		TWA: 78 ppm 8 hours.
2-methylpropan-1-ol		Ministry of Labor and Employment (Brazil, 11/2001). TWA: 115 mg/m ³ 8 hours. TWA: 40 ppm 8 hours.
12-hydroxyoctadecanoic acid 1,3-benzenedimethanamine a		ACGIH TLV (United States). TWA: 10 mg/m ³ Form: Inhalable particle TWA: 3 mg/m ³ , (inhalable dust) Form: Respirable particle
ethylbenzene		Ministry of Labor and Employment (Brazil, 11/2001). TWA: 340 mg/m ³ 8 hours. TWA: 78 ppm 8 hours.
Recommended monitoring procedures		priate monitoring standards. Reference to thos for the determination of hazardous
Appropriate engineering controls	contaminants below any recommend	ols to keep worker exposure to airborne ed or statutory limits. The engineering controls concentrations below any lower explosive
Environmental exposure controls	: Emissions from ventilation or work pr	ocess equipment should be checked to ensure environmental protection legislation. In some ineering modifications to the process
Individual protection measur	<u>es</u>	
Hygiene measures	before eating, smoking and using the Appropriate techniques should be use Contaminated work clothing should n	oughly after handling chemical products, e lavatory and at the end of the working period. ed to remove potentially contaminated clothing. to be allowed out of the workplace. Wash b. Ensure that eyewash stations and safety location.
Eye protection	: Chemical splash goggles.	
Skin protection Hand protection	be worn at all times when handling ch this is necessary. Considering the pa check during use that the gloves are should be noted that the time to brea different for different glove manufactu	s complying with an approved standard should nemical products if a risk assessment indicates arameters specified by the glove manufacturer, still retaining their protective properties. It kthrough for any glove material may be urers. In the case of mixtures, consisting of ne of the gloves cannot be accurately
Gloves	: butyl rubber	
Body protection	being performed and the risks involve	
	E	nglish (US) South America 6/15

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	1	Liquid.	
Color	1	Yellow.	
Odor	1	Aromatic. [Slight]	
рН	1	Not applicable.	
Melting point	1	Not available.	
Boiling point	1	>37.78°C (>100°F)	
Flash point	1	Closed cup: 37°C (98.6°F)	
Evaporation rate	:	Not available.	
Flammability (solid, gas)	:	Not available.	
Lower and upper explosive (flammable) limits	:	Not available.	
Vapor pressure	:	Not available.	
Vapor density	1	Not available.	
Relative density	1	1.69	
Solubility(ies)		Media Result	
	1	cold water Not soluble	
Partition coefficient: n- octanol/water	:	Not applicable.	
Auto-ignition temperature	1	Not available.	
Decomposition temperature	:	Not available.	
Viscosity	:	Kinematic (room temperature): >400 mm²/s (>400 cSt) Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)	
Viscosity	1	> 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	1	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 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) phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
·····	LD50 Oral	Rat	15000 mg/kg	-
Aluminium powder (stabilized)	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	>15900 mg/kg	-
Epoxy Resin (700 <mw <=1100)</mw 	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Hydrocarbons, C10-C13, n-	LD50 Dermal	Rabbit	>5000 mg/kg	-
alkanes, isoalkanes, cyclics, < 2% aromatics				
	LD50 Oral	Rat	>6 g/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	-
2,3-epoxypropyl neodecanoate	LD50 Dermal	Rat	3800 mg/kg	-
	LD50 Oral	Rat	9.6 g/kg	-
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	LC50 Inhalation Dusts and mists	Rat	3.56 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 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	-
Conclusion/Summary	• There are no data available on	the mixture itsel	f	

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

English (US) South America

Section 11. Toxicological information

Product/ingredient name	Result			Species	Score	e E	xposure	Observation
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Eyes - Mild irritant			Rabbit	-	24	hours	-
P	Eyes - Red	iness of	the	Rabbit	0.4	24	hours	-
	conjunctiva							
	Skin - Ede			Rabbit	0.5		hours	-
	Skin - Eryt		schar	Rabbit	0.8		hours	-
w/lone	Skin - Mild Skin - Moo		itont	Rabbit Rabbit	-		hours hours 500	-
xylene	SKIN - WOO	ierate in	nam	Rabbit	-	m		-
Conclusion/Summary							0	1
Skin	: There a	re no da	ita availa	ble on the mi	xture itsel	lf.		
Eyes	: There a	re no da	ita availa	ble on the mi	xture itsel	lf.		
Respiratory				ble on the mi				
Sensitization								
Product/ingredient name	Route of		Species			Result		
r roudeningredient hame	exposure		opecies	•		Result		
bis-[4-(2,3-epoxipropoxi)	skin		Mouse			Sensitiz	ing	
phenyl]propane								
Conclusion/Summary								
Skin	: There a	re no da	ita availa	ble on the mi	xture itsel	lf.		
Respiratory	: There a	re no da	ita availa	ble on the mi	xture itsel	lf.		
<u>Mutagenicity</u>								
Not available.								
Conclusion/Summary	• There a	re no da	ita availa	ble on the mi	xture itsel	f		
Carcinogenicity								
Not available.								
Conclusion/Summary	• There a	re no da	ta availa	ble on the mi	vtura itsal	If		
Classification	. mere a				Alure ilser			
Product/ingredient name	OSHA	IARC	NTF	,				
bis-[4-(2,3-epoxipropoxi) phenyl]propane	-	3	-					
xylene	-	3	-					
ethylbenzene	-	2B	-					
Carcinogen Classification	code:	I	I					
IARC: 1, 2A, 2B, 3,								
NTP: Known to be OSHA: + Not listed/not regu		inogen; F	Reasonabl	y anticipated to	be a humar	n carcinog	en	
Poproductivo toxisity								
Reproductive toxicity								
Not available.								
Conclusion/Summary	: There a	re no da	ita availa	ble on the mi	xture itsel	lt.		
Conclusion/Summary <u>Feratogenicity</u>	: There a	re no da	ita availa	ble on the mi	xture itsel	lt.		

Date of issue

Section 11. Toxicological information

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

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	Category	Route of exposure	Target organs
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	Category 2	inhalation	lungs
ethylbenzene	Category 2	-	hearing organs

Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS), eye, lens or cornea. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, cardiovascular system, upper respiratory tract, skin.

Aspiration hazard

Name	Result
xylene Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
2-methylpropan-1-ol ethylbenzene	ASPIRATION HAZARD - Category 2 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	: Not available.
Potential acute health effect	t <u>s</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.
	ysical, 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
	English (US) South America 10/15

Code 00444799 Product name	SIGMASHIELD 880 BASE ALU	Date of issue Y/G	8 February 2024	Version	1
Section 11.	Toxicological in	formation			
Skin contact	: Adverse sym irritation redness dryness cracking	ptoms may include th	e following:		
Ingestion	: No specific da	ata.			
Delayed and immed	liate effects and also chro	onic effects from she	ort and long term expos	sure	
Conclusion/Sum	vapor concer in adverse he irritation and Symptoms ar drowsiness a	ntrations in excess of ealth effects such as r adverse effects on th nd signs include heac nd, in extreme cases	mixture itself. Exposure the stated occupational e nucous membrane and r e kidneys, liver and centr ache, dizziness, fatigue, , loss of consciousness. rption through the skin.	exposure limit m espiratory syste al nervous syste muscular weak Solvents may c	ay resuli ≌m em. ness, ause

exposure and eye contact.

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

subsequently exposed to very low levels.

: No known significant effects or critical hazards.

: Suspected of causing genetic defects.

exposure.

Short term exposure Potential immediate

Long term exposure Potential immediate

Potential delayed effects

Potential delayed effects

Potential chronic health effects

effects

effects

Not available.

Carcinogenicity

Reproductive toxicity

Numerical measures of toxicity Acute toxicity estimates

Mutagenicity

General

that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. 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

: 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

: Suspected of causing cancer. Risk of cancer depends on duration and level of

short-term and long-term exposure by oral, inhalation and dermal routes of

Section 11. Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMASHIELD 880 BASE ALU Y/G	13147.9	5936.7	N/A	143.8	17.3
bis-[4-(2,3-epoxipropoxi)phenyl]propane	15000	23000	N/A	N/A	N/A
Epoxy Resin (700 <mw<=1100)< td=""><td>2500</td><td>2500</td><td>N/A</td><td>N/A</td><td>N/A</td></mw<=1100)<>	2500	2500	N/A	N/A	N/A
Phenol, methylstyrenated	2500	2500	N/A	N/A	N/A
xylene	4300	1700	N/A	11	1.5
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
2,3-epoxypropyl neodecanoate	9600	3800	N/A	N/A	N/A
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	2500	2500	N/A	N/A	3.56
ethylbenzene	3500	17800	N/A	17.8	1.5

Other information

: Not available.

Section 12. Ecological information

Ecotoxicity

Product/ingredient name	Result	Species	Exposure
bis-[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
2,3-epoxypropyl neodecanoate	Acute EC50 3.5 mg/l	Algae	96 hours
	Acute EC50 4.8 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 9.6 mg/l	Fish - Oncorhynchus mykiss	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
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
-	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

Persistence/degradability

1

Section 12. Ecological information

Product/ingredient name	Test	Result		Dose		Inoculum
•				DUSC		moculum
12-hydroxyoctadecanoic			eadily - 29 days	-		-
acid, reaction products with	Ready					
1,3-benzenedimethanamine	Biodegradability -	-				
and hexamethylenediamine	Closed Bottle					
-	Test					
ethylbenzene	-	79 % - Readily - 10 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	gradability
bis-[4-(2,3-epoxipropoxi)	-		-		Not rea	adilv
phenyl]propane						,
xylene	-		-		Readily	V
2,3-epoxypropyl	_		_		Not rea	,
neodecanoate						
ethylbenzene					Readily	J
Curybonzono	_		_		rteauiry	y

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Phenol, methylstyrenated	3.627	-	Low
xylene	3.12	7.4 to 18.5	Low
2-methylpropan-1-ol	1	-	Low
2,3-epoxypropyl	4.4	-	High
neodecanoate			
12-hydroxyoctadecanoic	>6	-	High
acid, reaction products with			
1,3-benzenedimethanamine			
and hexamethylenediamine			
ethylbenzene	3.6	79.43	Low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable 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.

1

Code	00444799		Date of issue	8 February 2024	Version	1
Product nam	e	SIGMASHIELD 880 BASE ALU Y/G				

Section 14. Transport information

	UN	Brazil (ANTT)	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3
Packing group	III	III		III
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	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.
Brazil	: None identified.
Risk number	: 30
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 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

Safety, health and	: No known specific national and/or regional regulations applicable to this product
environmental regulations	(including its ingredients).
specific for the product	

Section 16. Other information

Н	is	to	ry

Date of previous issue	: No previous validation
Version	: 1
	EHS

Code	00444799		Date of issue	8 February 2024	Version	1
Product nam	е	SIGMASHIELD 880 BASE ALU Y/G				

Section 16. Other information

Key to abbreviations	: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
	ADR = The European Agreement concerning the International Carriage of
	Dangerous Goods by Road
	ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	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)
	RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
	UN = United Nations
References	: ABNT NBR 14725-4: 2014 ANTT - National Land Transportation Agency

Indicates information that has changed from previously issued version.

Disclaimer

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.