SAFETY DATA SHEET

Date of issue/Date of revision

: 29 November 2022 Version : 2.02



SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier		
Product name	: SIGMASHIELD 880 GF BASE BLACK	
Product code	: 000001089254	
Product type	: Liquid.	
Other means of identifies	tion	
Other means of identifica		
00328340		
00328340		
00328340	s of the substance or mixture and uses advised against	
00328340		
00328340 1.2 Relevant identified use	s of the substance or mixture and uses advised against	

Sigma Paints Egypt Villa#8, street 279 New Maadi, Cairo Egypt Tel: 00202 516 223 797 Fax: 00202 516 38 04	
e-mail address of person	: PS.ACEMEA@ppg.com
responsible for this SDS	

1.4 Emergency telephone : +20 2 6840902 number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Product definition : Mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 STOT RE 2, H373 Aquatic Chronic 3, H412 The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards	identification
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Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure. 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. Do not breathe vapour.
Response	 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: Not applicable.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	 poxy resin (MW ≤ 700) Epoxy Resin (700<mw<=1100)< li=""> Phenol, methylstyrenated 2-methylpropan-1-ol crystalline silica, respirable powder (<10 microns) 2,3-epoxypropyl neodecanoate 1,3-bis[12-hydroxy-octadecamide-N-methylene]-benzene </mw<=1100)<>
Supplemental label elements	: Contains epoxy constituents. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Special packaging requirem	<u>ients</u>
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.
2.3 Other hazards	
Product meets the criteria for PBT or vPvB	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: Prolonged or repeated contact may dry skin and cause irritation.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures	: Mixture				
Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
epoxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6	≥10 - ≤22	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥5.0 - ≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Epoxy Resin (700 <mw <=1100)</mw 	CAS: 25036-25-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
Phenol, methylstyrenated	REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥1.0 - ≤5.0	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
crystalline silica, respirable powder (<10 microns)	EC: 238-878-4 CAS: 14808-60-7	≥1.0 - ≤5.0	STOT RE 1, H372 (inhalation)	-	[1] [2]
2,3-epoxypropyl neodecanoate	REACH #: 01-2119431597-33 EC: 247-979-2 CAS: 26761-45-5	≥0.10 - ≤2.1	Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411	-	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
1,3-bis[12-hydroxy- octadecamide-N- methylene]-benzene	REACH #: 01-2119962189-26 CAS: 911674-82-3 Index: 616-198-00-2	≥1.0 - ≤5.0	Skin Sens. 1, H317 Aquatic Chronic 4, H413	-	[1] [2]
			See Section 16 for the full text of the H statements declared above.		

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

English (GB) Egypt 3/16

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SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures : Check for and remove any contact lenses. Immediately flush eyes with running water for Eye contact at least 15 minutes, keeping eyelids open. Seek immediate medical attention. 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 recognised skin cleanser. Do NOT use solvents or thinners. : If swallowed, seek medical advice immediately and show the container or label. Keep Ingestion person warm and at rest. Do NOT induce vomiting. 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye damage.
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.
Over-exposure signs	symptoms
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
4.3 Indication of any in	nmediate medical attention and special treatment needed
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.

SECTION 5: Firefighting measures

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5.1 Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
5.2 Special hazards arising f	rom the substance or mixture
Hazards from the substance or mixture	: Flammable liquid and vapour. 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 combustion products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds metal oxide/oxides
5.3 Advice for firefighters	
Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, pro	tective 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For emergency responders	: If specialised 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".	
6.2 Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains an 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.	
6.3 Methods and material for	containment and cleaning up	
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.	

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II				
Code : 0000	01089254	Date of issue/Date of revision	: 29 November 2022	
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SECTION 6: A	SECTION 6: Accidental release measures			
Large spill	explosion-proof equi sewers, water course treatment plant or pr combustible, absorb place in container for	isk. Move containers from spill area. Use pment. Approach the release from upwin es, basements or confined areas. Wash oceed as follows. Contain and collect spi ent material e.g. sand, earth, vermiculite or r disposal according to local regulations. actor. Contaminated absorbent material roduct.	d. Prevent entry into spillages into an effluent llage with non- or diatomaceous earth and Dispose of via a licensed	
6.4 Reference to oth sections	See Section 8 for inf	nergency contact information. ormation on appropriate personal protecti dditional waste treatment information.	ve equipment.	

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 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 breathe vapour or mist. Do not ingest. 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.
7.2 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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
7.3 Specific end use(s) See Section 1.2 for Identified ι	ISES
Recommendations	: Not available

Recommendations	i not available.
Industrial sector specific	: Not available.
solutions	

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

Code : 000001089254

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Date of issue/Date of revision

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

2-methylpropan-1-ol through skin. 2-methylpropan-1-ol TWA: 221 mg/m³ 8 hours. crystalline silica, respirable powder (<10 microns) ACGIH TLV (United States, 1/2022). [Silica, crystalline] ethylbenzene TWA: 50 ppm 8 hours. 1,3-bis[12-hydroxy-octadecamide-N-methylene]- benzene ACGIH TLV (United States, 1/2022). [Silica, crystalline] TWA: 30 ppm 18 minutes. STEL: 384 mg/m³ 15 minutes. TWA: 30 ppm 18 hours. TWA: 30 ppm 18 minutes. 1,3-bis[12-hydroxy-octadecamide-N-methylene]- benzene ACGIH TLV (United States), TWA: 30 ppm 18 minutes. Recommended monitoring procedures Feference should be made to monitoring standards, such as the following: Eu Standard EN 680 (Workplace atmospheres - Guidance for the assessment of by inhalation to chemical agents for comparison with limit values and measure strategy) European Standard EN 4422 (Workplace atmospheres - Guide for enguirements for the performance of procedures for the assessment of chemical biological agents) European Standard EN 4422 (Workplace atmospheres - Guide for the regineering controls to keep worker exposure to aiborne contaminants J recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion vertilation equipment. Individual protection measures : Wash hands, forearms and face thoroughly after handling chemical products, I eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated work con	Product/ingredier	t name	Exposure limit values
2-methylpropan-1-ol ACGIH TLV (United States, 1/2022). TWA: 152 mg/m ³ 8 hours. crystalline silica, respirable powder (<10 microns) ethylbenzene 1,3-bis[12-hydroxy-octadecamide-N-methylene]- benzene 1,3-bis[12-hydroxy-octadecamide-N-methylene]- Recommended monitoring procedures Xiandar EN 689 (Workplace atmospheres - Guidance for the assessment of by inhalation to chemical agents for comparison with limit values and measures strategy) European Standard EN 14042 (Workplace atmospheres - Guidance for the assessment of chemical agents) European Standard EN 4402 (Workplace atmospheres - Guidance for the desember of hezardous substances will also be required. 2 Exposure controls Appropriate engineering : Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to alrborme contaminants I recommended or statutoy limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment. ndividual protection measures Hygiene measures : Wash hands, forearms and face thoroughy after handling chemical products, leating, shoking and using the lavatory and at the end of the workplace. Wasi contaminated cloting before reusing. Ensure that eyewash stations and safe showers are close to the workstation location.	kylene		STEL: 442 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 221 mg/m ³ 8 hours.
crystalline silica, respirable powder (<10 microns)	2-methylpropan-1-ol		ACGIH TLV (United States, 1/2022). TWA: 152 mg/m ³ 8 hours.
ethylbenzeneEU OEL (Europe, 1/2022). Absorbed through skin. STEL: 884 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 442 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States). TWA: 30 mg/m³, (Respirable fraction)Recommended monitoring procedures:Reference should be made to monitoring standards, such as the following: Eu Standard EN 689 (Workplace atmospheres - Guidance for the assessment of by inhalation to chemical agents for comparison with limit values and measures strategy) European Standard EN 14042 (Workplace atmospheres - Guide for application and use of procedures for the assessment of exposure to chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of the entime of hazardous substances will also be required.22 Exposure controls Appropriate engineering controls:Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to airborne contaminants I recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment.	crystalline silica, respirable po	wder (<10 microns)	ACGIH TLV (United States, 1/2022). [Silica, crystalline]
1,3-bis[12-hydroxy-octadecamide-N-methylene]- benzene TWA: 100 ppm 8 hours. ACGIH TLV (United States). TWA: 3 mg/m³, (Respirable fraction) Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: Eu Standard EN 689 (Workplace atmospheres - Guidance for the assessment of a by inhalation to chemical agents for comparison with limit values and measures strategy) European Standard EN 14042 (Workplace atmospheres - Guide for application and use of procedures for the assessment of exposure to chemical biological agents). European Standard EN 482 (Workplace atmospheres - Guid er requirements for the performance of procedures for the measurement of chem agents). Reference to national guidance documents for methods for the detern of hazardous substances will also be required. 2.2 Exposure controls : Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to airborne contaminants I recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment. ndividual protection measures : Wash hands, forearms and face thoroughly after handling chemical products, l eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location. Eye/face protection Skin protection : Chemical splash goggles and face shield.	ethylbenzene		EU OEL (Europe, 1/2022). Absorbed through skin. STEL: 884 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes.
benzene TWA: 3 mg/m³, (Respirable fraction) Recommended monitoring procedures Feference should be made to monitoring standards, such as the following: Eu Standard EN 689 (Workplace atmospheres - Guidance for the assessment of by inhalation to chemical agents for comparison with limit values and measures strategy) European Standard EN 14042 (Workplace atmospheres - Guide for application and use of procedures for the assessment of exposure to chemical biological agents) European Standard EN 482 (Workplace atmospheres - Geir requirements for the performance of procedures for the measurement of chem agents) Reference to national guidance documents for methods for the determ of hazardous substances will also be required. .2 Exposure controls Appropriate engineering controls . Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to airborne contaminants I recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment. Individual protection measures : Wash hands, forearms and face thoroughly after handling chemical products, leating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location. Eye/face protection Skin protection : Chemical splash goggles and face shield.			TWA: 100 ppm 8 hours.
proceduresStandard EN 689 (Workplace atmospheres - Guidance for the assessment of by inhalation to chemical agents for comparison with limit values and measure strategy) European Standard EN 14042 (Workplace atmospheres - Guide for application and use of procedures for the assessment of exposure to chemical biological agents) European Standard EN 482 (Workplace atmospheres - Guide for application and use of procedures for the assessment of exposure to chemical biological agents) European Standard EN 482 (Workplace atmospheres - Ger requirements for the performance of procedures for the measurement of chem agents) Reference to national guidance documents for methods for the determ of hazardous substances will also be required2 Exposure controls: Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to airborne contaminants I recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment.Individual protection measures: Wash hands, forearms and face thoroughly after handling chemical products, I eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location.Eye/face protection Skin protection: Chemical splash goggles and face shield.		iide-N-methylene]-	
Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ver other engineering controls to keep worker exposure to airborne contaminants is recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment.Individual protection measures Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, I eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location.Eye/face protection Skin protection: Chemical splash goggles and face shield.		biological agents requirements for agents) Referen	b) European Standard EN 482 (Workplace atmospheres - General the performance of procedures for the measurement of chemical nee to national guidance documents for methods for the determination
controlsother engineering controls to keep worker exposure to airborne contaminants to recommended or statutory limits. The engineering controls also need to keep vapour or dust concentrations below any lower explosive limits. Use explosion ventilation equipment.Individual protection measures:Wash hands, forearms and face thoroughly after handling chemical products, I eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location.Eye/face protection Skin protection: Chemical splash goggles and face shield.	2 Exposure controls		
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, I eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location.Eye/face protection Skin protection: Chemical splash goggles and face shield.	ppropriate engineering	other engineering recommended o vapour or dust co	g controls to keep worker exposure to airborne contaminants below any r statutory limits. The engineering controls also need to keep gas, oncentrations below any lower explosive limits. Use explosion-proof
 eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clo Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safet showers are close to the workstation location. Eye/face protection Chemical splash goggles and face shield. 	dividual protection measur	<u>es</u>	
Skin protection	Hygiene measures	eating, smoking Appropriate tech Contaminated w contaminated clo	and using the lavatory and at the end of the working period. Iniques should be used to remove potentially contaminated clothing. ork clothing should not be allowed out of the workplace. Wash othing before reusing. Ensure that eyewash stations and safety
Used waste stiller in the second state of the		: Chemical splash	goggles and face shield.
mand protection :	Hand protection	:	

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SECTION 8: Exposu	re controls/personal 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. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Gloves	: butyl rubber
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. 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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
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.
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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

2,3-epoxypropyl neodecanoat	e 276	528.8	
Ingradiant name	•	°E	Method
: Closed cup: 37°C			
: Greatest known range: L	.ower: 1.7% Upp	er: 10.9% (2-r	nethylpropan-1-ol)
: Not available.			
: >37.78°C			
, ,	• •		· · · ·
: Not available.			
: Aromatic.			
: Black.			
: Liquid.			
	 Black. Aromatic. Not available. May start to solidify at the data for the following ing -75.63°C (-104.1°F) >37.78°C Not available. Greatest known range: L 	 Black. Aromatic. Not available. May start to solidify at the following temper data for the following ingredient: Phenol, n -75.63°C (-104.1°F) >37.78°C Not available. Greatest known range: Lower: 1.7% Upp Closed cup: 37°C 	 Black. Aromatic. Not available. May start to solidify at the following temperature: -14°C data for the following ingredient: Phenol, methylstyrenat -75.63°C (-104.1°F) >37.78°C Not available. Greatest known range: Lower: 1.7% Upper: 10.9% (2-r Closed cup: 37°C

Conforms to Regulation (EC) No	o. 19	07/2006 (REACH), A	nnex II					
Code : 000001089254			Date of	issue/	Date of revision	on	: 29 N	ovember 2022
SIGMASHIELD 880 GF BASE BL/	ACK	ζ.						
SECTION 9: Physical a	nd	chemical prop	perties					
Decomposition temperature	:	Stable under recomr	mended st	orage a	and handling co	onditions	(see Sec	tion 7).
рН	- :	Not applicable. insol			_			
Viscosity	-	Kinematic (room ten Kinematic (40°C): >2		: >400	mm²/s			
Solubility(ies)	:							
Media		Result						
cold water		Not soluble						
Partition coefficient: n-octanol water	/ :	Not applicable.						
Vapour pressure	:		Vapor	ur Pres	sure at 20°C	Vap	our pres	sure at 50°C
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2			
Evaporation rate	:	Highest known value butyl acetate	e: 0.84 (et	nylbenz	ene) Weighteo	d average	e: 0.74co	mpared with
Relative density	:	1.52						
Vapour density	:	Highest known value	e: 3.7 (Air	= 1) (x	ylene). Weigh	ted avera	age: 3.36	(Air = 1)
Explosive properties	:	The product itself is vapour or dust with a	•		the formation	of an exp	olosible m	nixture of
Oxidising properties	:	Product does not pre	esent an o	xidizing	hazard.			
Particle characteristics								
Median particle size	-	Not applicable.						
9.2 Other information								
No additional information.								
SECTION 10: Stability a	and	d reactivity						
10.1 Reactivity :	No	specific test data rela	ated to rea	ctivity a	vailable for this	s product	or its ing	redients.
10.2 Chemical stability :	The	e product is stable.						
10.3 Possibility of : nazardous reactions	Un	der normal conditions	s of storag	e and u	se, hazardous	reactions	s will not	occur.
10.4 Conditions to sweld	14/1	on owneed to high t						

10.4 Conditions to avoid	4	When exposed to high temperatures may produce hazardous decomposition products.
		Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous: Depending on conditions, decomposition products may include the following materials:
carbon oxides nitrogen oxides halogenated compounds metal oxide/oxides

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Epoxy Resin (700 <mw<=1100)< td=""><td>LD50 Dermal</td><td>Rat</td><td>>2000 mg/kg</td><td>-</td></mw<=1100)<>	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	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	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	-
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
Reaction products of	LC50 Inhalation Dusts and	Rat	>5.08 mg/l	4 hours
12-hydroxyoctadecanoic acid and	mists			
octadecanoic acid and				
1,3-phenylenedimethanamine				

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Conclusion/Summers		•	4		•

Conclusion/Summary

S	Skin
E	yes

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

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

Sensitisation

Product/ingr	edient name	Route of exposure	Species	Result
epoxy resin (MW \leq 700)		skin	Mouse	Sensitising
Conclusion/Summary			I	
Skin	: There are no data	a available on the mixtu	re itself.	
Respiratory	: There are no data	a available on the mixtu	re itself.	
<u>Mutagenicity</u>				
Conclusion/Summary	: There are no data	a available on the mixtu	re itself.	
Carcinogenicity				
Conclusion/Summary	: There are no data	a available on the mixtu	re itself.	
Reproductive toxicity				
Conclusion/Summary	: There are no data	a available on the mixtu	re itself.	
Teratogenicity				
Conclusion/Summary	: There are no data	a available on the mixtu	re itself.	
Specific target organ toxi	<u>city (single exposure)</u>			

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ECTION 11: Toxicol	ogical information				
Product/ingr	edient name	Cateç	jory	Route of exposure	Target organs
xylene 2-methylpropan-1-ol		Catego Catego Catego	ory 3	-	Respiratory tract irritation Respiratory tract irritation Narcotic effects
Specific target organ toxicity	(repeated exposure)		,		-
Product/ingr	edient name	Categ	jory	Route of exposure	Target organs
Quartz (SiO2) ethylbenzene		Catego Catego		inhalation -	- hearing organs
Aspiration hazard					
Product/ir	igredient name				Result
xylene ethylbenzene				RATION HAZARD RATION HAZARD	
Information on likely routes of exposure	: Not available.				
Potential acute health effects	5				
Inhalation	: No known significant effe	cts or critio	cal ha	zards.	
Ingestion	: No known significant effe	cts or critio	cal ha	zards.	
Skin contact	: Causes skin irritation. De	efatting to t	the sk	in. May cause an	allergic skin reaction.
Eye contact	: Causes serious eye dama	age.			
Symptoms related to the phy	vsical, chemical and toxico	logical ch	aract	teristics	
Inhalation	: No specific data.				
Ingestion	: Adverse symptoms may i stomach pains	nclude the	follo	wing:	
Skin contact	: Adverse symptoms may i pain or irritation redness dryness cracking blistering may occur				
Eye contact	: Adverse symptoms may i pain watering redness	nclude the	follov	wing:	
Delayed and immediate effec	cts as well as chronic effec	ts from sl	hort a	ind long-term exp	<u>oosure</u>
Short term exposure					
Potential immediate effects	: Not available.				
Potential delayed effects	: Not available.				
Long term exposure Potential immediate effects	: Not available.				
Potential delayed effects	: Not available.				
Potential chronic health effe Not available.					
Conclusion/Summary	: Not available.				

	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: Suspected of causing genetic defects.
Reproductive toxicity	: No known significant effects or critical hazards.
Other information	: Not available.

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 vapour/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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	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 - Daphnia magna	48 hours
	Acute LC50 9.6 mg/l	Fish - Oncorhynchus mykiss	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	Acute LC50 >100 mg/l	Fish	96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum		
epoxy resin (MW ≤ 700) ethylbenzene	OECD 301F -	5 % - 28 days 79 % - Readily - 10 da	ys -	-		
Conclusion/Summary : There are no data available on the mixture itself.						
Product/ingredient name		Aquatic half-life	Photolysis	Biodegradability		
epoxy resin (MW ≤ 700)		-	-	Not readily		
xylene		-	-	Readily		
2,3-epoxypropyl neodecanoa	te	-	-	Not readily		
ethylbenzene		-	-	Readily		

12.3 Bioaccumulative potential

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SECTION 12: Ecological inforn	nation		
Product/ingredient name	LogPow	BCF	Potential
poxy resin (MW ≤ 700)	3	31	low
xylene	3.12	7.4 to 18.5	low
Phenol, methylstyrenated	3.627	-	low
2-methylpropan-1-ol	1	-	low
2,3-epoxypropyl neodecanoate	4.4	-	high
ethylbenzene	3.6	79.43	low

12.4 Mobility in soil	
Soil/water partition	: Not available.
coefficient (Koc)	
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product	
Methods of disposal	: The generation of waste should be avoided or minimised 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.
Hazardous waste	: Yes.

European waste catalogue (EWC)

Waste code	Waste designation			
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances			
Packaging				
Methods of disposal		tion of waste should be avoided or minimised wherever possible. Waste hould be recycled. Incineration or landfill should only be considered when not feasible.		
Type of packaging	European waste catalogue (EWC)			
Container	15 01 06	mixed packaging		

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SECTION 13: Disposal considerations

Special precautions
 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	111	111
14.5 Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID	This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1.
Tunnel code	: (D/E)
IMDG IATA	 This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5. None identified.
	· None ruentined.

14.6 Special precautions for : 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.

14.7 Transport in bulk: Not applicable.according to IMOinstruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

Annex XIV - List of substances subject to authorisation
Annex XIV
None of the components are listed.
Substances of very high concern
None of the components are listed.

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	-		
SECTION 15: Regul			
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	s : Not applicable	9.	
Other national and international and internation	ational regulations	<u>.</u>	
Ozone depleting substan	<u>ces (1005/2009/EU</u>	1	
Not listed.			
15.2 Chemical safety assessment	: No Chemical S	Safety Assessment has been carried out.	
SECTION 16: Other	information		
Indicates information that		proviously issued version	
Abbreviations and	•		
acronyms	 ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number 		
Full text of abbreviated H statements	H226 Flar H304 May H312 Har H315 Cau H317 May H318 Cau H319 Cau H332 Har H335 May H336 May	nly flammable liquid and vapour. nmable liquid and vapour. / be fatal if swallowed and enters airways. mful in contact with skin. // cause an allergic skin reaction. // cause an allergic skin reaction. // cause serious eye damage. // cause serious eye irritation. // cause respiratory irritation. // cause drowsiness or dizziness. // cause drowsiness or dizziness.	

H341 Suspected of causing genetic defects. H372 Causes damage to organs through prolonged or repeated exposure.

- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

Full text of classifications	: Acute Tox. 4	ACUTE TOXICITY - Category 4
[CLP/GHS]	Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
	Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
	Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
	Asp. Tox. 1	ASPIRATION HAZARD - Category 1
	Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
	Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
	Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
	Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
	Muta. 2	GERM CELL MUTAGENICITY - Category 2
	Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
	Skin Sens. 1	SKIN SENSITISATION - Category 1
	STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED
		EXPOSURE - Category 1
	STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED
		EXPOSURE - Category 2
	STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE
		EXPOSURE - Category 3

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SECTION 16: Other	r information			
History				
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Date of previous issue	: 11 November 2022			
Prepared by	: EHS			
Version	: 2.02			
<u>Disclaimer</u>				

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