SAFETY DATA SHEET

Date of issue/Date of revision

: 17 April 2024

Version

: 1.04



PPG

SECTION 1: Identification of the substance/mixture and of the company/ undertaking **1.1 Product identifier Product name** : SIGMASHIELD 420/460/880/880GF HARDENER **Product code** : 000001189596 Other means of identification 00446815; 00446816; 00446819 1.2 Relevant identified uses of the substance or mixture and uses advised against **Product use** : Professional applications, Used by spraying. Use of the substance/ : Coating. mixture : Product is not intended, labelled or packaged for consumer use. **Uses advised against** 1.3 Details of the supplier of the safety data sheet **PPG** Cameroun BP 1028, Douala Cameroon Tel: 00237 33 37 83 47 Fax: 00237 33 37 88 98 e-mail address of person : PS.ACEMEA@ppg.com responsible for this SDS **1.4 Emergency telephone** : ORFILA (INRS) 0033 (0)1 45 42 59 59 / 00237 33 37 83 47 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 Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 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

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SECTION 2: Hazards	identification	
Hazard pictograms		
Signal word	: Danger	
Hazard statements	 Flammable liquid and vapour. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Harmful to aquatic life with long lasting effects. 	
Precautionary statements		
Prevention Response	 Wear protective gloves, protective clothing and eye or face protection. Keep away fron heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: 	
Response	Immediately call a POISON CENTER or doctor.	
Storage	: 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. P280, P210, P304 + P310, P301 + P310, P403 + P233, P501 	
Hazardous ingredients	 Epoxy Amine Resin xylene Propylidynetrimethanol, propoxylated, reaction products with ammonia benzyl alcohol 2-methylpropan-1-ol m-phenylenebis(methylamine) 2,4,6-tris(dimethylaminomethyl)phenol 	
Supplemental label elements	: Not applicable.	
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>ents</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 vPvE	
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
₽poxy Amine Resin	CAS: SUB123903	≥25 - ≤50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317	-	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥10 - ≤25	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 Aquatic Chronic 3, H412	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Propylidynetrimethanol, propoxylated, reaction products with ammonia	REACH #: 01-2119556886-20 EC: 500-105-6 CAS: 39423-51-3	≥10 - <25	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/ kg ATE [Dermal] = 1100 mg/kg	[1]
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	ATE [Oral] = 1230 mg/ kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥5.0 - ≤10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
m-phenylenebis (methylamine)	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	≥1.0 - <5.0	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071	ATE [Oral] = 930 mg/ kg ATE [Inhalation (gases)] = 4500 ppm	[1] [2]
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	≥1.0 - ≤5.0	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318	ATE [Oral] = 1200 mg/ kg ATE [Dermal] = 1280 mg/kg	[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]
		<u> </u>	(00)		
		English	(GB) Car	neroon	3/16

Conforms to Regulation (EC) No	. 1907/2006 (REACH),	Annex II, as amended b	y Commission Regulation (EU)
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SECTION 3: Composition/information on ingredients				

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

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with running water for 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.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep 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

		English (GB)	Cameroon	4/16
Ingestion	: Adverse sympt stomach pains	oms may include the followin	g:	
Skin contact	pain or irritation redness dryness cracking blistering may	occur	-	
Inhalation	respiratory trac coughing		-	
Eye contact	pain watering redness	oms may include the followin		
Over-exposure signs/s				
Ingestion	: Harmful if swall	owed.		
Skin contact	: Causes severe	burns. Defatting to the skin.	May cause an allergic skin rea	ction.
Inhalation	: May cause resp	piratory irritation.		
Eye contact	: Causes serious	s eye damage.		
Potential acute health e	effects			
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SECTION 4: First aid measures

4.3 Indication of any immediate 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	
E.A. Exclusion to bits an analysis	

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	om 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	
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 Europear standard EN 469 will provide a basic level of protection for chemical incidents.	-

SECTION 6: Accidental release measures

6.1 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 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 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.

6.3 Methods and material for containment and cleaning up

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SECTION 6: Accidental release measures

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

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. 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 uses.

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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

Product/ingredient	name	Exposure limit values
xylene		EU OEL (Europe, 1/2022). [xylene, mixed isomers pure] Absorbed through skin. STEL: 442 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 221 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
benzyl alcohol		IPEL (-). TWA: 5 ppm
2-methylpropan-1-ol		STEL: 10 ppm ACGIH TLV (United States, 1/2023). TWA: 152 mg/m ³ 8 hours.
m-phenylenebis(methylamine)		TWA: 50 ppm 8 hours. ACGIH TLV (United States, 1/2023). Absorbed through skin. C: 0.018 ppm
ethylbenzene		EU OEL (Europe, 1/2022). Absorbed through skin. STEL: 884 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 442 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
Recommended monitoring : procedures	Standard EN 689 by inhalation to c strategy) Europe application and u biological agents requirements for agents) Referen	d be made to monitoring standards, such as the following: European 9 (Workplace atmospheres - Guidance for the assessment of exposure chemical agents for comparison with limit values and measurement ean Standard EN 14042 (Workplace atmospheres - Guide for the use of procedures for the assessment of exposure to chemical and 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 postances will also be required.
8.2 Exposure controls		
Appropriate engineering : controls	other engineering recommended of	equate ventilation. Use process enclosures, local exhaust ventilation or 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 ment.
Individual protection measures	<u>5</u>	
Hygiene measures :	eating, smoking Appropriate tech Contaminated we contaminated clo	earms and face thoroughly after handling chemical products, before and using the lavatory and at the end of the working period. niques 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 se to the workstation location.
Eye/face protection : <u>Skin protection</u>	Chemical splash	goggles and face shield.
Hand protection :		

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	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	: nitrile neoprene
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	
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

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Appearance					
Physical state	: Liquid.				
Colour	: Colourless.				
Odour	: Amine-like. [Strong]				
Odour threshold	: Not available.				
Melting point/freezing point	: May start to solidify at the following temperature: 14°C (57.2°F) This is based on data for the following ingredient: m-phenylenebis(methylamine). Weighted average: -50.04°C (-58.1°F)				
Initial boiling point and boiling range	: >37.78°C				
Flammability	: Not available.				
Upper/lower flammability or explosive limits	: Greatest known range: Lower:	: Greatest known range: Lower: 1.3% Upper: 13% (benzyl alcohol)			
Flash point	: Closed cup: 44°C				
Auto-ignition temperature	: Ingredient name	°C	°F	Method	
	Propylidynetrimethanol, propoxylated, reaction products with ammonia	320	608	EU A.15	
Decomposition temperature	: Stable under recommended sto	rage and h	andling cond	litions (see Section 7).	
pH .	: Not applicable. insoluble in wate	-	Ũ	· /	

English (GB)

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SIGMASHIELD 420/460/880/8	80GF H	ARDENER						
SECTION 9: Physica	l and	chemical pro	perties					
Viscosity	:	60 - 100 s (ISO 6mr	n)					
Solubility(ies)	:							
Media		Result						
cold water		Not soluble						
Partition coefficient: n-octa water	nol/ :	Not applicable.						
Vapour pressure	:		Vapour Pressure at 20°C		Vapour pressure at 50°C			
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2-methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2			
Evaporation rate	:	Highest known value butyl acetate	e: 0.84 (etl	nylbenze	ene) Weighted	average	: 0.51co	mpared with
Relative density	:	0.99						
	:	Highest known value	e: 3.7 (Air	= 1) (x	ylene). Weight	ted avera	ge: 3.54	(Air = 1)
Vapour density		The product itself is	not explos		the formation	of an exp	losible m	nixture of
	:	vapour or dust with a	air is possi	ble.				
Explosive properties		•	•		hazard.			
Vapour density Explosive properties Oxidising properties Particle characteristics		vapour or dust with a	•		hazard.			

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

	-	-
10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	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 decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects Acute toxicity

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Propylidynetrimethanol, propoxylated, reaction products with ammonia	LD50 Dermal	Rabbit	0.4 g/kg	-
	LD50 Oral	Rat	0.22 g/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/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	-
m-phenylenebis(methylamine)	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male, Female	>3100 mg/kg	-
	LD50 Oral	Rat	930 mg/kg	-
2,4,6-tris(dimethylaminomethyl)phenol	LD50 Dermal	Rabbit	1.28 g/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/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	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene m-phenylenebis(methylamine) 2,4,6-tris(dimethylaminomethyl)phenol	Skin - Moderate irritant Skin - Severe irritant Skin - Visible necrosis	Rabbit Rat Rabbit	- -	24 hours 500 mg 4 hours 4 hours	- 4 hours 7 days

Conclusion/Summary

Skin		
Eyes		

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

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

Sensitisation

Product/ingredient name m-phenylenebis(methylamine)		Route of exposure	Species	Result Sensitising
		skin	Mouse	
Conclusion/Summary		L		
Skin	: There are no dat	ta available on the mixtur	e itself.	
Respiratory	: There are no dat	ta available on the mixtur	e itself.	
<u>Mutagenicity</u>				
Conclusion/Summary	: There are no dat	ta available on the mixtur	e itself.	
Carcinogenicity				
Conclusion/Summary	: There are no dat	ta available on the mixtur	e itself.	
Reproductive toxicity				
Conclusion/Summary	: There are no dat	ta available on the mixtur	e itself.	
Teratogenicity				
Conclusion/Summary	: There are no dat	ta available on the mixtur	e itself.	
Specific target organ tox	city (single exposure)		

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SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
xylene 2-methylpropan-1-ol	Category 3 Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation Narcotic effects

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/i	ngredient name	R	esult
xylene ethylbenzene		ASPIRATION HAZARD - ASPIRATION HAZARD -	
Information on likely routes of exposure	: Not available.		
Potential acute health effect	t <u>s</u>		
Inhalation	: May cause respiratory irritation	۱.	
Ingestion	: Harmful if swallowed.		
Skin contact	: Causes severe burns. Defatti	ng to the skin. May cause an a	llergic skin reaction.
Eye contact	: Causes serious eye damage.		
Symptoms related to the ph	ysical, chemical and toxicologi	cal characteristics	
Inhalation	: Adverse symptoms may inclue respiratory tract irritation coughing	de the following:	
Ingestion	: Adverse symptoms may inclue stomach pains	de the following:	
Skin contact	: Adverse symptoms may inclue pain or irritation redness dryness cracking blistering may occur	de the following:	
Eye contact	: Adverse symptoms may inclue pain watering redness	le the following:	
Delayed and immediate effe	cts as well as chronic effects fr	om short and long-term expo	<u>sure</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	ects		
Not available.			
Conclusion/Summary	: Not available.		

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SECTION 11: Toxicological information

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.
Reproductive toxicity	: No known significant effects or critical hazards.
Other information	: Not available.

Prolonged or repeated contact may dry skin and cause irritation. 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. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

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
2-methylpropan-1-ol 2,4,6-tris(dimethylaminomethyl)phenol ethylbenzene	Acute EC50 1100 mg/l Acute LC50 175 mg/l Acute EC50 1.8 mg/l Fresh water	Daphnia Fish Daphnia	48 hours 96 hours 48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-
Conclusion/Summary	: There are no dat	a available on the mixture itself.		

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
Propylidynetrimethanol, propoxylated, reaction products with ammonia	-1.13	-	Low
benzyl alcohol	0.87	-	Low
2-methylpropan-1-ol	1	-	Low
m-phenylenebis(methylamine)	0.18	2.69	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
ethylbenzene	3.6	79.43	Low

12.4 Mobility in soil	
Soil/water partition coefficient (Koc)	: Not available.
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 sul		varnish containing organic solvents or other hazardous substances
ackaging	I	
Methods of disposal		ion 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

English	(GB)
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- Code
 - : 000001189596

Date of issue/Date of revision :

: 17 April 2024

SIGMASHIELD 420/460/880/880GF HARDENER

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	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)
14.4 Packing group		111	111
14.5 Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID	: None identified.
Tunnel code	: (D/E)
IMDG	: None identified.
ΙΑΤΑ	: None identified.

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 IMO
 instruments

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.

6	Date of issue/Date of revision	: 17 April 2024
80GF HARDENER		
tory information		
: Not applicable.		
: Not applicable. es (1005/2009/EU)		
: No Chemical Safety As	ssessment has been carried out.	
nformation		
nas changed from previous	sly issued version.	
CLP = Classification, I 1272/2008] DNEL = Derived No E EUH statement = CLF PNEC = Predicted No	Labelling and Packaging Regulation [Re Frect Level P-specific Hazard statement Effect Concentration	gulation (EC) No.
H226FlammableH302Harmful if syH304May be fataH312Harmful in cH314Causes sevH315Causes skirH317May cause aH318Causes seriH319Causes seriH335May cause aH336May cause aH373May cause aH314Cause aH335Harmful if inH336May cause aH317May cause aH336May cause aH317Harmful to a	liquid and vapour. wallowed. If if swallowed and enters airways. contact with skin. vere skin burns and eye damage. In irritation. an allergic skin reaction. ious eye damage. ious eye damage. ious eye irritation. haled. respiratory irritation. drowsiness or dizziness. damage to organs through prolonged or uatic life with long lasting effects. aquatic life with long lasting effects. to the respiratory tract.	repeated exposure.
: Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 3 Skin Corr. 1B Skin Corr. 1C Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1B STOT RE 2	LONG-TERM (CHRONIC) AQUA ASPIRATION HAZARD - Categor SERIOUS EYE DAMAGE/EYE IR SERIOUS EYE DAMAGE/EYE IR FLAMMABLE LIQUIDS - Categor FLAMMABLE LIQUIDS - Categor SKIN CORROSION/IRRITATION SKIN CORROSION/IRRITATION SKIN CORROSION/IRRITATION SKIN SENSITISATION - Categor SKIN SENSITISATION - Categor	TIC HAZARD - Category 3 y 1 RITATION - Category 1 RITATION - Category 2 y 2 y 3 - Category 1B - Category 1C - Category 2 / 1 / 1B
	ional regulations. Not applicable. ional regulations. Not applicable. es (1005/2009/EU) No Chemical Safety A formation has changed from previous ATE = Acute Toxicity CLP = Classification, 1272/2008] DNEL = Derived No E EUH statement = CLF PNEC = Predicted No RRN = REACH Regis H225 Highly flame H226 Flammable H302 Harmful if s H304 May be fata H312 Harmful in o H314 Causes sev H315 Causes skin H317 May cause H318 Causes ser H319 Causes to H317 May cause H318 Causes to H318 Causes to H318 Causes to H319 Causes to H310 Causes to H311 Toxic to aquitation H312 Harmful to EUH071 Corrosive to Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 2 Flam. Liq. 2 Flam. Liq. 3 Skin Corr. 1B Skin Corr. 1C Skin Sens. 1 Skin Sens. 1 Skin Sens. 1B	itory information : Not applicable. ional regulations. : Not applicable. es (1005/2009/EU) : No Chemical Safety Assessment has been carried out. Information tas changed from previously issued version. : ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Re 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number : H225 Highly flammable liquid and vapour. H326 Flammable liquid and vapour. H327 Harmful in contact with skin. H314 Causes serious eye damage. H315 Causes serious eye damage. H316 Causes damage to organs through prolonged or H411 H326 May cause damage to organs through prolonged or H411 H336 May cause damage to organs through prolonged or H411 H336 May cause damage to organs through prolonged or H411 H336 May cause damage to SEROUS EYE DAMAGE/EYE IR Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IR Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IR Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IR Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IR Eye Irrit. 2 SKIN COR

SECTION 16: Other information

<u>History</u>	
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Date of previous issue	: 19 February 2024
Prepared by	: EHS
Version	: 1.04

Disclaimer

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