SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to GHS UN rev. 7

Date of issue/Date of revision 9 October 2024 Version 17.01

Section 1. Identification

Product code	: 00191019
Product name	: SIGMASHIELD 220/420/460/880/880GF HARDENER
Product type	: Liquid.
Other means of identification Not available.	
Relevant identified uses of the	e substance or mixture and uses advised against
Product use	 Coating.; Hardener. Professional applications, Used by spraying.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.
Supplier's information	: PPG Asian Paints Private Limited 6A Shanti Nagar Santa Cruz (East) Mumbai - 400055 India
Emergency telephone number:	: +91 22 6815 8700

Section 2. Hazards identification

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1C SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 REPRODUCTIVE TOXICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 33.4% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 33.4% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 56.7% Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 43.7%

GHS label elements

Section 2. Hazards identification

Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapour. Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May damage fertility or the unborn child. Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Øbtain, read and follow all safety instructions before use. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapour. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Do not touch eyes. Contaminated work clothing should not be allowed out of the workplace.
Response	: Collect spillage. IF exposed or concerned, get medical advice. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. Get medical help. IF SWALLOWED: Get emergency medical help immediately. Get medical help. Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Get emergency medical help immediately. Get medical help. Wash with plenty of water. Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. If skin irritation or rash occurs: Get medical help. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help. Get medical help if you feel unwell.
Storage	: Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not	: Prolonged or repeated contact may dry skin and cause irritation.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture	
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: Mixture

CAS number/other identifiers

CAS number	: Not applicable.

Ingredient name	%	CAS number
Epoxy Amine Resin	25 - <50	SUB123903
xylene	10 - <20	1330-20-7
Propylidynetrimethanol, propoxylated, reaction products with ammonia	10 - <20	39423-51-3
benzyl alcohol	10 - <20	100-51-6
2-methylpropan-1-ol	5 - <10	78-83-1
bisphenol A	3 - <5	80-05-7
m-phenylenebis(methylamine)	3 - <5	1477-55-0
ethylbenzene	3 - <5	100-41-4

India

Product code	00191019	Date of issue	9 October 2024	Version 17.01
Product name	SIGMASHIELD 220/420/460/880/880GF HAR	DENER		

Section 3. Composition/information on ingredients

2,4,6-tris(dimethylaminomethyl)phenol	1 - <3	90-72-2
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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 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	 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. 	

Most important symptoms/effects, acute and delaye	d

Potential acute health effects	<u>2</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.
Over-exposure signs/sympto	oms
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	 Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary		
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Specific treatments	: No specific treatment.	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	

	See	toxicological	information	(Section	11)
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Section 5. Firefighting measures Extinguishing media Suitable extinguishing media Unsuitable extinguishing media Unsuitable extinguishing media Image: Suitable extinguishing media Unsuitable extinguishing media Image: Suitable extinguishing media Suitable extinguishing media Image: Suitable extinguishing media Image: Suitable extinguishing media Suitable extinguishing media Image: Suitable extinguishing media Image: Suitable extinguishing media Suitable extinguishing media Image: Suitable extinguishing media Image: Suitable extinguishing media Suitable extinguishing media Image: Suitable extinguishing media <

Specific hazards arising from the chemical	:	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 very toxic 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

Special protective actions	1	Promptly isolate the scene by removing all persons from the vicinity of the incident if
for fire-fighters		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	1	Fire-fighters should wear appropriate protective equipment and self-contained
equipment for fire-fighters		breathing apparatus (SCBA) with a full face-piece operated in positive pressure

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

mode.

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".
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. Collect spillage.

Methods and material for containment and cleaning up

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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	1	
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. Avoid exposure during pregnancy. 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.
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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name		Exposure limits
<mark>x</mark> ylene 2-methylpropan-1-ol		ACGIH TLV (United States, 7/2023) [p- xylene and mixtures containing p-xylene] Ototoxicant. TWA 8 hours: 20 ppm. ACGIH TLV (United States, 7/2023) TWA 8 hours: 50 ppm.
m-phenylenebis(methylamine)		TWA 8 hours: 152 mg/m ³ . ACGIH TLV (United States, 7/2023) Absorbed through skin. C: 0.018 ppm.
ethylbenzene		ACGIH TLV (United States, 7/2023) Ototoxicant. TWA 8 hours: 20 ppm.
Recommended monitoring : procedures		priate monitoring standards. Reference to thous for the determination of hazardous
Appropriate engineering : controls	ventilation or other engineering contr contaminants below any recommend	Jse process enclosures, local exhaust ols to keep worker exposure to airborne ed or statutory limits. The engineering controls st concentrations below any lower explosive n equipment.
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 measures		
	eating, smoking and using the lavato Appropriate techniques should be us Contaminated work clothing should r contaminated clothing before reusing showers are close to the workstation	
	assessment indicates this is necessar gases or dusts. If contact is possible unless the assessment indicates a hi	proved standard should be used when a risk ary to avoid exposure to liquid splashes, mists, e, the following protection should be worn, gher degree of protection: chemical splash ion hazards exist, a full-face respirator may be
Skin protection		
Hand protection :	be worn at all times when handling of 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 manufactor	es 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 :	nitrile neoprene	

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Section 8. Expos	ure controls/personal protection
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.
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	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

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

<u>Appearance</u>									
Physical state	:	Liquid.							
Colour	÷	<mark>∛</mark> arious [Light]							
Odour	÷	Amine-like.							
Odour threshold	1	Not available.							
Melting point/freezing point		Not available.							
Boiling point or initial boiling point and boiling range	-	>37.78°C (>100°F)							
Flammability	:	Not available.							
Lower and upper explosive (flammable) limits	;	Not available.							
Flash point	:	Closed cup: 36°C (9	96.8°F)						
Auto-ignition temperature	:	305°C (581°F)							
Decomposition temperature	:	Not available.	Not available.						
рН	:	Not applicable.	Not applicable.						
Viscosity	1	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): >21 mm²/s							
Viscosity	:	> 100 s (ISO 6mm)							
		Media	Re	sult					
Solubility(ies)	-	cold water	No	t soluble	!				
Partition coefficient: n- octanol/water	1	Not applicable.							
Vapour pressure	:		Vapoι	r Press	ure at 20°C	Vap	our pres	ssure 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				
Relative density	1	1.02							
Relative vapour density	:	Not available.							
Particle characteristics									

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Section 9. Physical and chemical properties

Evaporation rate

: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	 Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides
Hazardous polymerisation	: Under normal conditions of storage and use, hazardous polymerisation will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
-	LD50 Oral	Rat	4.3 g/kg	-
Propylidynetrimethanol,	LD50 Dermal	Rabbit	0.4 g/kg	-
propoxylated, reaction				
products with ammonia				
	LD50 Oral	Rat	0.22 g/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
,	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1200 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	-
bisphenol A	LD50 Dermal	Rabbit	3600 mg/kg	-
	LD50 Oral	Rat	3.25 g/kg	-
m-phenylenebis	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
(methylamine)				
, , , , , , , , , , , , , , , , , , ,	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female	00	
	LD50 Oral	Rat	930 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
2	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2,4,6-tris	LD50 Dermal	Rat	1280 mg/kg	-
(dimethylaminomethyl)				
phenol				
•	LD50 Oral	Rat	1200 mg/kg	-

Irritation/Corrosion

Product code 00191019

Product name SIGMASHIELD 220/420/460/880/880GF HARDENER

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
m-phenylenebis (methylamine)	Skin - Severe irritant	Rat	-	4 hours	4 hours

Conclusion/Summary

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

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

Sensitisation

Skin Eyes

Product/ingredient name	Route of exposure	Species	Result
n-phenylenebis (methylamine)	skin	Mouse	Sensitising
Conclusion/Summary			
Skin	: There are no d	lata available on the mixture itse	elf.
Respiratory	: There are no d	lata available on the mixture itse	elf.
Mutagenicity			
Conclusion/Summary	: There are no d	lata available on the mixture itse	elf.
<u>Carcinogenicity</u> Conclusion/Summary	: There are no d	lata available on the mixture itse	lf.
<u>Reproductive toxicity</u> Conclusion/Summary	: There are no d	lata available on the mixture itse	lf.
<u>Teratogenicity</u> Conclusion/Summary	: There are no d	lata available on the mixture itse	lf.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
bisphenol A	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Section 11. Toxicological information

Name	Result
xylene	ASPIRATION HAZARD - Category 1
benzyl alcohol	ASPIRATION HAZARD - Category 2
2-methylpropan-1-ol	ASPIRATION HAZARD - Category 2
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure	1	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	Harmful if inhaled. May cause respiratory irritation.
Skin contact	1	Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	3	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure				
<u>Short term exposure</u>				
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	<u>acts</u>			

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Product name SIGMASHIELD 220/420/460/880/880GF HARDENER

Section 11. Toxicological information

Not available.

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	: May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Øral	1185.37 mg/kg
Dermal	1786.21 mg/kg
Inhalation (gases)	47128.08 ppm
Inhalation (vapours)	22.33 mg/l
Inhalation (dusts and mists)	2.87 mg/l

Other information

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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
bisphenol A	Acute LC50 0.885 mg/l Fresh water	Crustaceans	48 hours
•	Acute LC50 8.11 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute LC50 4.6 mg/l Fresh water	Fish	96 hours
	Chronic NOEC 0.000174 mg/l Fresh	Fish	5 months
	water		
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
-	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2,4,6-tris	Acute LC50 >100 mg/l	Daphnia	48 hours
(dimethylaminomethyl)pheno	I J		
	Acute LC50 >100 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
(dimethylaminomethyl)phenol	OECD 301D	79 % - Readily - 10 days 4 % - Not readily - 28 days	-	-

Section 12. Ecological information

•	•		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
vylene benzyl alcohol bisphenol A ethylbenzene 2,4,6-tris	- - - -	-	Readily Readily Readily Readily Not readily
(dimethylaminomethyl)phenol	-	-	Notreadily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xy lene	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
bisphenol A	3.4	43.65	Low
m-phenylenebis (methylamine)	0.18	2.69	Low
ethylbenzene	3.6	79.43	Low
2,4,6-tris (dimethylaminomethyl)pheno	0.219 I	-	Low

<u>Mobility in soil</u>

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. 2 Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. 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

	UN	IMDG	ΙΑΤΑ
UN number	UN3469	UN3469	UN3469
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
Transport hazard class(es)	3 (8)	3 (8)	3 (8)
Packing group	III	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	✓(Polyoxy propylene diamine)	Not applicable.

Additional information

UN

IMDG

ΙΑΤΑ

: None identified.

: The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

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

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

History

Date of issue/Date of revision	: 9 October 2024
Date of previous issue	: 9/18/2023
Version	: 17.01
Prepared by	: EHS

Date of issue 9 October 2024

Product name SIGMASHIELD 220/420/460/880/880GF HARDENER

Section 16. Other information

ey to abbreviations	: ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships,
	1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	UN = United Nations

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
ACUTE TOXICITY (dermal) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 1C	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
REPRODUCTIVE TOXICITY - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract	Calculation method
irritation) - Category 3	
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	Calculation method

✓ Indicates information that has changed from previously issued version.

Notice to reader

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