# SAFETY DATA SHEET

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013



Date of issue/Date of revision

Date of issue/Date of Tevi

9 August 2025

Version 2.03

# Section 1. Chemical product and company identification

Product code : 00445419

Product name : SIGMASHIELD 880XS HARDENER
Product name : SIGMASHIELD 880XS HARDENER

Product type : Liquid.

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

**Product use** : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against

: Not applicable.

Supplier's details : PPG Coatings (Kunshan) Co., Ltd

53 Jinyang Road, Lujia Town,

215331 Kunshan City, Jiangsu Province, P.R. China Tel: 86 512 57678859 Fax: 86 512 57678857

**Emergency telephone** number (with hours of

operation)

: 00 86 532 83889090

# Section 2. Hazards identification

Classification of the substance or mixture according to GB 30000.1-2024 and GB 30000-2013

## **Emergency overview**

Liquid.

Clear.

Characteristic.

Harmful if swallowed. in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Causes serious eye damage.

May damage fertility or the unborn child.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F).

IF exposed or concerned: Get medical advice or attention. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Immediately call a POISON CENTER or doctor.

See Section 12 for environmental precautions.

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**Product name SIGMASHIELD 880XS HARDENER** 

## Section 2. Hazards identification

Classification of the substance or mixture

: ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1B

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1

TOXIC TO REPRODUCTION - Category 1B AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 31.9%

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 53%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 73.4%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 48.8%

### **GHS label elements**

**Hazard pictograms** 









Signal word

**Hazard statements** 

: Danger

: Harmful if swallowed, in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction. Causes serious eye damage.

May damage fertility or the unborn child.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

#### **Precautionary statements**

**Prevention** 

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

### Response

: Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. 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.

# Suitable extinguishing media

Storage

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

: Use an extinguishing agent suitable for the surrounding fire.

: Store locked up.

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**Product name SIGMASHIELD 880XS HARDENER** 

## Section 2. Hazards identification

Physical and chemical

hazards

: No known significant effects or critical hazards.

**Health hazards** : Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns

and eye damage. May cause an allergic skin reaction. Causes serious eye

damage. May damage fertility or the unborn child.

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:

> reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact** : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

: Adverse symptoms may include the following: Ingestion

> stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

**Potential immediate** : Not available.

effects

**Potential delayed effects** : Not available.

**Environmental hazards** : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Other hazards which do not : None known.

result in classification

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**Product name SIGMASHIELD 880XS HARDENER** 

# Section 3. Composition/information on ingredients

Substance/mixture : Mixture

### **CAS** number/other identifiers

**CAS number** : Not applicable.

Ingredient name	%	CAS number
Formaldehyde, oligomeric reaction products with 1-chloro-	10 - <25	9003-36-5
2,3-epoxypropane and phenol		
m-phenylenebis(methylamine)	10 - <25	1477-55-0
Propylidynetrimethanol, propoxylated, reaction products with ammonia	10 - <25	39423-51-3
benzyl alcohol	10 - <25	100-51-6
Talc , not containing asbestiform fibres	1 - <10	14807-96-6
bisphenol A	1 - <10	80-05-7
2,4,6-tris(dimethylaminomethyl)phenol	1 - <10	90-72-2
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	0.1 - <1	123-26-2

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 recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label.

Keep person warm and at rest. Do NOT induce vomiting.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : Harmful if inhaled.

Skin contact : Causes severe burns. Harmful in contact with skin. May cause an allergic skin

reaction.

**Ingestion**: Harmful if swallowed.

## Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

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**Product name SIGMASHIELD 880XS HARDENER** 

## Section 4. First aid measures

Inhalation Adverse symptoms may include the following:

> reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

> stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. Notes to physician

The exposed person may need to be kept under medical surveillance for 48 hours.

No specific treatment. **Specific treatments** 

**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.

: Use an extinguishing agent suitable for the surrounding fire.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

### **Extinguishing media**

Suitable extinguishing

media

: None known.

**Unsuitable extinguishing** media

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

This material is 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

halogenated compounds metal oxide/oxides Formaldehyde.

**Special protective actions** for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without

suitable training.

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# Section 5. Fire-fighting measures

**Special protective** equipment for fire-fighters

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Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

## Methods and materials for containment and cleaning up

**Small spill** 

Stop leak if without risk. Move containers from spill area. 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. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

**Precautions for safe** handling

: 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 vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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# Section 7. Handling and storage

including any incompatibilities

Product code 00445419

Conditions for safe storage, : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. 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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

### **Control parameters**

### **Occupational exposure limits**

Ingredient name	Exposure limits
m-phenylenebis(methylamine)	ACGIH TLV (United States, 1/2024)
	Absorbed through skin.
	C: 0.018 ppm.
Talc , not containing asbestiform fibres	GBZ 2.1 (China, 7/2024)
•	PC-TWA 8 hours: 3 mg/m³. Form: total
	dust.
	PC-TWA 8 hours: 1 mg/m <sup>3</sup> . Form:
	respirable dust.
bisphenol A	GBZ 2.1 (China, 7/2024)
	PC-TWA 8 hours: 5 mg/m <sup>3</sup> .
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	ACGIH TLV (United States)
, , , ,	TWA: 10 mg/m³. Form: Total dust.
	TWA: 3 mg/m³. Form: Respirable.

**Recommended monitoring** procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering** controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**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.

### Individual protection measures

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye protection Skin protection**  : Chemical splash goggles and face shield.

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# Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying v

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately

estimated.

Gloves : 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.

Other skin protection : Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

**Respiratory protection**: Respirator selection must be based on known or anticipated exposure levels, the

hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is

necessary.

# Section 9. Physical and chemical properties

**Appearance** 

Physical state : Liquid.
Color : Clear.

Odor : Characteristic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 195°C (383°F)

Lower and upper explosive

(flammable) limits

minable) mints

Relative density : 1.33

Solubility(ies) : Media Result

cold water Not soluble

Viscosity : Dynamic (room temperature): Not available.

: Not available.

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm<sup>2</sup>/s

# 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.

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**Product name SIGMASHIELD 880XS HARDENER** 

# Section 10. Stability and reactivity

**Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition

products.

**Incompatible materials**: Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition** 

products

: Depending on conditions, decomposition products may include the following

materials: carbon oxides nitrogen oxides halogenated compounds Formaldehyde.

metal oxide/oxides

# Section 11. Toxicological information

### Information on toxicological effects

## **Acute toxicity**

Product/ingredient name	Result	Dose
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Rat - Oral - LD50	>10000 mg/kg
m-phenylenebis(methylamine)	Rat - Oral - LD50	930 mg/kg
- ' ' ' '	Rat - Male, Female - Dermal - LD50	>3100 mg/kg
-	Rat - Inhalation - LC50 Gas.	700 ppm [1 hours]
Propylidynetrimethanol, propoxylated, reaction products with ammonia	Rat - Oral - LD50	0.22 g/kg
-	Rabbit - Dermal - LD50	0.4 g/kg
benzyl alcohol	Rabbit - Dermal - LD50	>2000 mg/kg
-	Rat - Oral - LD50	1200 mg/kg
-	Rat - Inhalation - LC50 Dusts and mists	>5 mg/l [4 hours]
bisphenol A	Rat - Oral - LD50	3.25 g/kg
-	Rabbit - Dermal - LD50	3600 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Rat - Dermal - LD50	1280 mg/kg
-	Rat - Oral - LD50	1200 mg/kg
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan- 1-amide)	Rat - Oral - LD50	>2000 mg/kg
-	Rat - Dermal - LD50	>2000 mg/kg
-	Rat - Inhalation - LC50 Dusts and mists	>5.11 mg/l [4 hours]

**Product Conclusion** 

: There are no data available on the mixture itself.

## Skin corrosion/irritation

Product/ingredient name	Species	Dose	Score
m-phenylenebis	Rat - Skin - Severe irritant	Duration of treatment/exposure: 4	-
(methylamine)		hours	
		Observation period: 4 hours	

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

Serious eye damage/eye irritation

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

**Respiratory corrosion/irritation** 

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

**Sensitization** 

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**Product name SIGMASHIELD 880XS HARDENER** 

# Section 11. Toxicological information

Product/ingredient name	Species	Result
n-phenylenebis(methylamine)	Mouse - skin OECD 429	Result: Sensitizing

Skin

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

Respiratory

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

**Mutagenicity** 

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

**Carcinogenicity** 

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

Reproductive toxicity

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

### Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Talc , not containing asbestiform fibres	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Respiratory tract irritation) - Category 3
bisphenol A	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Respiratory tract irritation) - Category 3

## **Aspiration hazard**

Product/ingredient name	Result
benzyl alcohol	ASPIRATION HAZARD - Category 2

Information on the likely routes of exposure

: Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : Harmful if inhaled.

**Skin contact**: Causes severe burns. Harmful in contact with skin. May cause an allergic skin

reaction.

**Ingestion**: 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:

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

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**Product name SIGMASHIELD 880XS HARDENER** 

# Section 11. Toxicological information

**Ingestion**: Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

## Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

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

General: 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**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
MGMASHIELD 880XS HARDENER m-phenylenebis(methylamine)	1221.4 930	1828.6 2500	8164.4 4500	N/A N/A	N/A N/A
Propylidynetrimethanol, propoxylated, reaction products with ammonia	500	1100	N/A	N/A	N/A
benzyl alcohol	1200	2500	N/A	N/A	N/A
bisphenol A	3250	3600	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan- 1-amide)	2500	2500	N/A	N/A	N/A

### Other information

Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F). 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.

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**Product name SIGMASHIELD 880XS HARDENER** 

# **Section 11. Toxicological information**

# Section 12. Ecological information

## **Toxicity**

Product/ingredient name	Result	Species	Dose / Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Acute - LC50	Fish	2.54 mg/l [96 hours]
bisphenol A	Acute - LC50 - Fresh water	Fish	4.6 mg/l [96 hours]
	Acute - LC50 - Fresh water	Crustaceans	0.885 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Fish	0.000174 mg/l [5 months]
	Acute - EC50	Algae - Green algae - Raphidocelis subcapitata	1.32 mg/l [72 hours]
	Chronic - EC10	Algae - Green algae - Raphidocelis subcapitata	1189 μg/l [72 hours]
2,4,6-tris (dimethylaminomethyl)phenol	Acute - LC50	Daphnia	>100 mg/l [48 hours]
` , , , , , , , , , , , , , , , , , , ,	Acute - LC50	Fish	>100 mg/l [96 hours]
N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan- 1-amide)	Acute - EC50	Daphnia - <i>Daphnia magna</i>	94 mg/l [48 hours]
	Acute - EC50	Algae - Pseudokirchneriella subcapitata	29 to 43 mg/l [72 hours]

**Conclusion/Summary**: Not available.

## Persistence/degradability

Product/ingredient name	Test	Result	Dose / Inoculum
	OECD [Ready Biodegradability - Closed Bottle Test]	4% [28 days] - Not readily	
N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan- 1-amide)	-	63% [28 days]	

## **Conclusion/Summary**: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol bisphenol A 2,4,6-tris (dimethylaminomethyl) phenol N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan- 1-amide)	- - -		Readily Readily Not readily Readily

## **Bioaccumulative potential**

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**Product name SIGMASHIELD 880XS HARDENER** 

## Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	-	Low
m-phenylenebis (methylamine)	0.18	2.69	Low
Propylidynetrimethanol, propoxylated, reaction products with ammonia	-1.13	-	Low
benzyl alcohol	0.87	-	Low
bisphenol A	3.4	43.65	Low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	Low
N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan- 1-amide)	>6	-	High

## **Mobility in soil**

Soil/Water partition

coefficient

: Not available.

Other adverse effects : No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** 

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# **Section 14. Transport information**

	China	UN	IMDG	IATA
UN number	UN3066	UN3066	UN3066	UN3066
UN proper shipping name	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	8	8	8	8
Packing group	II	II	II	II
				[

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**Product name SIGMASHIELD 880XS HARDENER** 

# **Section 14. Transport information**

**Environmental** Yes. The Yes. The Yes. The Yes. environmentally environmentally environmentally hazards hazardous substance hazardous substance hazardous substance mark is not required. mark is not required. mark is not required. **Marine pollutant** Not applicable. Not applicable. Not applicable. (Epoxy Resin) substances

### **Additional information**

CN : None identified. UN : None identified.

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

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

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

: All components are listed or exempted. China inventory (IECSC)

References : Production Safety Law of the People's Republic of China

Code of Occupational Disease Prevention of the People's Republic of China

Environmental Protection Law of the People's Republic of China

Fire Control Law of the People's Republic of China

Regulations on the Control over Safety of Dangerous Chemicals

Occupational exposure limits for hazardous agents in the workplace chemical

hazardous agents (GBZ2.1)

Specification for classification and labelling of chemicals according to Part 1:

General rules (GB 30000.1-2024)

Safety data sheet for chemical products - Content and order of sections (GB/

T16483)

Guidance on the compilation of safety data sheet for chemical products (GB/

T17519)

General rule for preparation of precautionary label for chemicals (GB15258)

Safety rules for classification, precautionary labeling and precautionary statements

of chemicals (GB30000.2-29)

# Section 16. Other information

**History** 

Date of issue/Date of

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**Product name SIGMASHIELD 880XS HARDENER** 

## Section 16. Other information

**Prepared by** 

: EHS

**Key to abbreviations** 

: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

**UN = United Nations** 



Indicates information that has changed from previously issued version.

### Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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