

Safety Data Sheet



Date of issue

3 February 2026

Version 4.04

Section 1. Product and company identification

Product name : SIGMA SHIELD 880XS HARDENER
Product code : 00418664
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses

Coating. Paints. Painting-related materials.

Uses advised against	Reason
Not applicable.	

Supplier's details:

Supplier : PPG Industrial do Brasil – Tintas e Vernizes Ltda
Via Anhanguera KM 106, Bairro São Judas Tadeu
Sumaré / SP, Brasil
55 19 2103-6000 (Recepção e Portaria)

Email address: : fds@ppg.com

Emergency telephone number : 0800 707 1767 / 0800 707 7022 – Empresa Ambipar response (24hs)
0800 014 8110 / (011)2661-8571 – CEATOX - Centro de Assistência Toxicológica
(atendimento 24hs)

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 - Category 1B
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 1B
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 1

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

Section 2. Hazards identification

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 54%

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 60.4%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 80.8%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 70.9%

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

- : 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 cancer. May damage fertility or the unborn child. Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

- : Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling.

Response

- : Collect spillage. 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. 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.

Storage

- : Not applicable.

Disposal

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

Other hazards which do not result in classification : None known.

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMA SHIELD 880XS HARDENER				

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

Ingredient name	%	CAS number/other identifiers	Classification
Crystalline silica, non-respirable powder (>10 microns)	≥30 - ≤60	14808-60-7	CARCINOGENICITY - Category 1A
Epoxy Amine Resin	≥20 - ≤30	SUB127835	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B
Propylidynetrimethanol, propoxylated, reaction products with ammonia	≥10 - ≤20	39423-51-3	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
benzyl alcohol	≥10 - ≤18	100-51-6	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 5 EYE IRRITATION - Category 2A ASPIRATION HAZARD - Category 2
m-phenylenebis(methylamine)	≥5 - ≤10	1477-55-0	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (LONG-TERM) - Category 3
Talc , not containing asbestos fibers	≥5 - ≤10	14807-96-6	CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
bisphenol A	≥3 - ≤5	80-05-7	ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN

Section 3. Composition/information on ingredients

2,4,6-tris(dimethylaminomethyl) phenol	≥1 - ≤3	90-72-2	TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1
--	---------	---------	---

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.

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.
Specific treatments	: The exposed person may need to be kept under medical surveillance for 48 hours. No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Potential acute health 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.

See toxicological information (Section 11)

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMA SHIELD 880XS HARDENER				

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

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 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
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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

Section 6. Accidental release measures

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.

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 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
crystalline silica, non-respirable powder (>10 microns)	ACGIH TLV (United States, 1/2025) [Silica, crystalline] TWA 8 hours: 0.025 mg/m ³ . Form: Respirable fraction.
m-phenylenebis(methylamine)	ACGIH TLV (United States, 1/2025) Absorbed through skin. C: 0.018 ppm.
Talc , not containing asbestosiform fibres	ACGIH TLV (United States, 1/2025) TWA 8 hours: 2 mg/m ³ . Form: Respirable fraction.

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.

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMA SHIELD 880XS HARDENER				

Section 8. Exposure controls/personal 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.
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	: Chemical splash goggles and face shield.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
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	: Not available.
Odor	: Not available.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 132°C (269.6°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMA SHIELD 880XS HARDENER				

Section 9. Physical and chemical properties

Vapor pressure	:	Not available.				
Vapor density	:	Not available.				
Relative density	:	1.25				
Solubility(ies)	:	<table border="1"> <thead> <tr> <th>Media</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>cold water</td> <td>Not soluble</td> </tr> </tbody> </table>	Media	Result	cold water	Not soluble
Media	Result					
cold water	Not soluble					
Partition coefficient: n-octanol/water	:	Not applicable.				
Auto-ignition temperature	:	Not available.				
Decomposition temperature	:	Not available.				
Viscosity	:	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)				
Particle characteristics						
Median particle size	:	Not applicable.				

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: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

This section contains information about toxicological effects and routes of exposure for the substances or mixtures that have these data or information available. There might be substances listed in section 3 of this SDS that will not have the information available.

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 cancer.
May damage fertility.

Acute toxicity

Code 00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMA SHIELD 880XS HARDENER			

Section 11. Toxicological information

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

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

Irritation/Corrosion

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

Conclusion/Summary

Skin : Causes severe burns.
Eyes : Causes serious eye damage.
Respiratory : Based on available data, the classification criteria are not met.

Sensitization

Product/ingredient name	Species	Result
m-phenylenebis(methylamine)	Mouse - skin OECD 429	<u>Result</u> : Sensitizing

Conclusion/Summary

Skin : May cause an allergic skin reaction.
Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : May cause cancer.

Classification

Code 00418664	Date of issue	3 February 2026	Version	4.04
Product name SIGMA SHIELD 880XS HARDENER				

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
crystalline silica, non-respirable powder (>10 microns)	+	1	Known to be a human carcinogen.
Talc , not containing asbestiform fibres	-	2A	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
bisphenol A	Category 3	-	Respiratory tract irritation

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

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

Aspiration hazard

Name	Result
benzyl alcohol	ASPIRATION HAZARD - Category 2

Conclusion/Summary : Based on available data, the classification criteria are not met.

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.

Section 11. Toxicological information

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

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

Conclusion/Summary : There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. 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.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

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)
SIGMAHIELD 880XS HARDENER	964.6	1744.6	12017.8	N/A	N/A
Propylidynetrtrimethanol, propoxylated, reaction products with ammonia	500	1100	N/A	N/A	N/A
benzyl alcohol	1200	2500	N/A	N/A	N/A
m-phenylenebis(methylamine)	930	2500	4500	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

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
bisphenol A	Acute - LC50 - Fresh water Acute - LC50 - Fresh water Chronic - NOEC - Fresh water Acute - EC50	Fish Crustaceans Fish	4.6 mg/l [96 hours] 0.885 mg/l [48 hours] 0.000174 mg/l [5 months]
	Chronic - EC10	Algae - Green algae - <i>Raphidocelis subcapitata</i>	1.32 mg/l [72 hours]
2,4,6-tris (dimethylaminomethyl)phenol	Acute - LC50	Algae - Green algae - <i>Raphidocelis subcapitata</i> Daphnia	1189 µg/l [72 hours]
	Acute - LC50	Fish	>100 mg/l [48 hours]
			>100 mg/l [96 hours]

Conclusion/Summary : Not available.

Persistence/degradability

Code 00418664	Date of issue	3 February 2026	Version 4.04
Product name SIGMA SHIELD 880XS HARDENER			

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose / Inoculum
2,4,6-tris (dimethylaminomethyl)phenol	OECD [Ready Biodegradability - Closed Bottle Test]	4% [28 days] - Not readily	

Conclusion/Summary : Not available.

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Propylidynetrimethanol, propoxylated, reaction products with ammonia	-1.13	-	Low
benzyl alcohol	0.87	-	Low
m-phenylenebis (methylamine)	0.18	2.69	Low
bisphenol A	3.4	43.65	Low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	Low

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.
-------------------------	--

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMASHIELD 880XS HARDENER				

Section 14. Transport information

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

Brazil : None identified.
Risk number : 80
IMDG : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
IATA : 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 to IMO instruments : Not applicable.

Section 15. Regulatory information

References : ABNT NBR 14725: 2023 (April 2025)

Section 16. Other information

History

Date of previous issue : 7/3/2025
Version : 4.04
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

Code	00418664	Date of issue	3 February 2026	Version	4.04
Product name	SIGMASHIELD 880XS HARDENER				

Section 16. Other information

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.

Disclaimer

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