

Safety Data Sheet



Date of issue 18 June 2026
Version 2.05

Section 1. Product and company identification

Product name : SIGMASHIELD 1200 BASE REDBROWN
Product code : 000001099300
Other means of identification : 00225082
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 Sao Judas Tadeu
Sumare / 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 (dermal) - Category 5
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

Target organs : Contains material which causes damage to the following organs: blood, liver, heart, brain.
Contains material which may cause damage to the following organs: kidneys, lungs, cardiovascular system, upper respiratory tract, skin, eyes, central nervous system (CNS).

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 89.7%

Section 2. Hazards identification

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 45.6%

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: May be harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause cancer.
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 ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

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

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

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: 00225082

Ingredient name	%	CAS number/other identifiers	Classification
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	≥30 - ≤60	9003-36-5	SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2
Phenol, polymer with formaldehyde, glycidyl ether (MW	≥5 - ≤10	28064-14-4	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

Section 3. Composition/information on ingredients

<=700)			SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (LONG-TERM) - Category 2
benzyl alcohol	≥5 - ≤10	100-51-6	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 5 EYE IRRITATION - Category 2A ASPIRATION HAZARD - Category 2
Talc , not containing asbestiform fibres	≥5 - ≤10	14807-96-6	CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
diiron trioxide	≥3 - ≤5	1309-37-1	Not classified as hazardous according to ABNT NBR 14725
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	<1	100545-48-0	ACUTE TOXICITY (oral) - Category 5 SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3
crystalline silica, respirable powder (<10 microns)	≤0.3	14808-60-7	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - 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** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- 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** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

- 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.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

See toxicological information (Section 11)

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 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
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.

- 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. Avoid breathing vapor. 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".

Section 6. Accidental release measures

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. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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
Alc , not containing asbestiform fibres	ACGIH TLV (United States, 1/2025) TWA 8 hours: 2 mg/m ³ . Form: Respirable fraction.
diron trioxide	ACGIH TLV (United States, 1/2025) TWA 8 hours: 5 mg/m ³ . Form: Respirable fraction.
crystalline silica, respirable powder (<10 microns)	ACGIH TLV (United States, 1/2025) [Silica, crystalline] TWA 8 hours: 0.025 mg/m ³ . Form: Respirable fraction.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, 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 : Chemical splash goggles.

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

: butyl rubber

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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.

Section 8. Exposure controls/personal protection

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 : Brownish-red.
Odor : Aromatic. [Slight]
pH : Not applicable.
Melting point : Not available.
Boiling point : >37.78°C (>100°F)
Flash point : Closed cup: 156°C (312.8°F)
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 1.59

Solubility(ies)

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 mm²/s (>21 cSt)
Viscosity : > 100 s (ISO 6mm)

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.

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 halogenated compounds Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

May be harmful in contact with skin.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.
 May cause cancer.

Acute toxicity

Product/ingredient name	Result	Dose
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Phenol, polymer with formaldehyde, glycidyl ether (MW<=700) benzyl alcohol	Rat - Oral - LD50	>10000 mg/kg
	Not available	Not available
	Rabbit - Dermal - LD50	>2000 mg/kg
	Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists	1200 mg/kg >5 mg/l [4 hours]
Talc , not containing asbestiform fibres diiron trioxide	Not available	Not available
	Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists	10 g/kg >5 mg/l [4 hours]
	Rat - Oral - LD50	>2000 mg/kg
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Rat - Oral - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	5.05 mg/l [4 hours]
crystalline silica, respirable powder (<10 microns)	Not available	Not available

Conclusion/Summary : May be harmful in contact with skin.

Irritation/Corrosion

Product/ingredient name	Species	Dose	Score
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available	Not available
benzyl alcohol	Not available	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available	Not available

Section 11. Toxicological information

diiron trioxide	Not available	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Not available	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available	Not available

Conclusion/Summary

- Skin** : Causes skin irritation.
- Eyes** : Causes serious eye irritation.
- Respiratory** : Based on available data, the classification criteria are not met.

Sensitization

Product/ingredient name	Species	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available
benzyl alcohol	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available
diiron trioxide	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Guinea pig - skin	Sensitizing
crystalline silica, respirable powder (<10 microns)	Not available	Not available

Conclusion/Summary

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

Mutagenicity

Product/ingredient name	Species	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available
benzyl alcohol	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available
diiron trioxide	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available

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

Carcinogenicity

Section 11. Toxicological information

Product/ingredient name	Species	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available
benzyl alcohol	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available
diiron trioxide	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available

Conclusion/Summary : May cause cancer.

Classification

Product/ingredient name	OSHA	IARC	NTP
Talc , not containing asbestiform fibres	-	2A	-
diiron trioxide	-	3	-
crystalline silica, respirable powder (<10 microns)	+	1	Known to be a human carcinogen.

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

Product/ingredient name	Species	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available
benzyl alcohol	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available
diiron trioxide	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available

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

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	None.	None.	None.
Phenol, polymer with formaldehyde, glycidyl ether (MW <=700)	None.	None.	None.
benzyl alcohol	None.	None.	None.
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
diiron trioxide	None.	None.	None.
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	None.	None.	None.
crystalline silica, respirable powder (<10 microns)	None.	None.	None.

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

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	None.	None.	None.
Phenol, polymer with formaldehyde, glycidyl ether (MW <=700)	None.	None.	None.
benzyl alcohol	None.	None.	None.
Talc , not containing asbestiform fibres	None.	None.	None.
diiron trioxide	None.	None.	None.
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	None.	None.	None.
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-

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, brain.
Contains material which may cause damage to the following organs: kidneys, lungs, cardiovascular system, upper respiratory tract, skin, eyes, central nervous system (CNS).

Aspiration hazard

Name	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	None.
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	None.
benzyl alcohol	ASPIRATION HAZARD - Category 2
benzyl alcohol	None.
Talc , not containing asbestiform fibres	None.
diiron trioxide	None.
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	None.
crystalline silica, respirable powder (<10 microns)	None.

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

Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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 either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. 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.

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

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

Section 11. Toxicological information

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

Potential chronic health effects

Product/ingredient name	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available
benzyl alcohol	Not available
Talc , not containing asbestiform fibres	Not available
diiron trioxide	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Not available
crystalline silica, respirable powder (<10 microns)	Not available

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 : No known significant effects or critical hazards.

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)
SIGMASHIELD 1200 BASE REDBROWN	13282.3	2850.2	Not available	Not available	Not available
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Not available	Not available	Not available	Not available	Not available
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	Not available	Not available	Not available	Not available	Not available
benzyl alcohol	1200	2500	Not available	Not available	Not available
Talc , not containing asbestiform fibres	Not available	Not available	Not available	Not available	Not available
diiron trioxide	10000	Not available	Not available	Not available	Not available
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	2500	Not available	Not available	Not available	5.05
crystalline silica, respirable powder (<10 microns)	Not available	Not available	Not available	Not available	Not available

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol diiron trioxide Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Acute - LC50	Fish	2.54 mg/l [96 hours]
	Acute - EC50	Daphnia	>100 mg/l [48 hours]
	Acute - LC50	Fish - <i>Oncorhynchus mykiss</i>	>10 mg/l [96 hours]
	Acute - EC50 Acute - EC50	Daphnia - <i>Daphnia magna</i> Algae - <i>Pseudokirchneriella subcapitata</i>	>10 mg/l [48 hours] >100 mg/l [72 hours]

Conclusion/Summary : Not available.

Persistence/degradability

Product/ingredient name	Test	Result	Dose / Inoculum
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Ready Biodegradability - Closed Bottle Test	22% [28 days]	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	- -	- -	Readily Inherent

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2.7	None.	Low
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	None.	None.	None.
benzyl alcohol	0.87	None.	Low
Talc, not containing asbestiform fibres	None.	None.	None.
diiron trioxide	None.	None.	None.
Octadecanoic acid,	>5.86	None.	High

Section 12. Ecological information

12-hydroxy-, reaction products with ethylenediamine crystalline silica, respirable powder (<10 microns)	None.	None.	None.
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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

	Brazil (ANTT)	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  (PAINT)
Transport hazard class(es)	9	9	9
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Marine pollutant substances	Not applicable.	(Epoxy Resin)	Not applicable.

Additional information

Brazil : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Section 14. Transport information

- Risk number** : 90
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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** : 2/3/2026
- Version** : 2.05
- 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.

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.