Safety Data Sheet

Date of issue 22 October 2026
Version 5

Section 1. Product and company identification

Product name : SIGMATHERM 540
Product code : 000001020161
Other means of identification : 00218772; 00218773 ; 30014177
Product type : Liquid.

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

Identified uses
Professional painting, indoor brush/roller Professional spray painting, near-industrial setting Professional non-spray painting, near-industrial setting

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 : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (dermal) - Category 5
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

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

Section 2. Hazards identification

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 46.5%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 51.1%

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
May be harmful in contact with skin.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
May cause cancer.
Harmful 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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. 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. Immediately call a POISON CENTER or doctor.

Storage : Store in a well-ventilated place. Keep container tightly closed.

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

Other hazards which do not result in classification : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : 00218772; 00218773 ; 30014177

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number/other identifiers	Classification
xylene	≥20 - ≤25	1330-20-7	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
Aluminium powder (stabilized)	≥10 - ≤20	7429-90-5	FLAMMABLE SOLIDS - Category 1 SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES - Category 2
Wollastonite	≥10 - ≤20	13983-17-0	Not classified as hazardous according to ABNT NBR 14725
Solvent naphtha (petroleum), heavy arom.	≥5 - ≤9.6	64742-94-5	FLAMMABLE LIQUIDS - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
1-methoxy-2-propanol	≥5 - ≤8.5	107-98-2	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	≥5 - ≤10	2530-83-8	SERIOUS EYE DAMAGE - Category 1 AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3
ethylbenzene	≥1 - ≤4.5	100-41-4	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Section 3. Composition/information on ingredients

			ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3
1-Butanol, titanium(4+) salt (4:1), homopolymer	≤1.7	9022-96-2	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
crystalline silica, non-respirable powder (>10 microns)	≤0.3	14808-60-7	CARCINOGENICITY - Category 1A
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 : 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 : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

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 : May cause respiratory irritation.

Skin contact : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin.

Ingestion : No known significant effects or critical hazards.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor. Put on appropriate personal protective equipment. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

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.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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). 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 breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in 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
xylene	**Ministry of Labor and Employment (Brazil, 11/2001) [Xylenes (o-, m-, p- isomers)]** TWA 8 hours: 78 ppm. TWA 8 hours: 340 mg/m³.
Aluminium powder (stabilized)	**ACGIH TLV (United States, 1/2026) [Aluminum, metal and insoluble compounds]** TWA 8 hours: 1 mg/m³. Form: Respirable fraction.
Wollastonite	**ACGIH TLV (United States, 1/2026)** TWA 8 hours: 1 mg/m³. Form: Inhalable fraction.
1-methoxy-2-propanol	**ACGIH TLV (United States, 1/2026)** TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m³.
ethylbenzene	**Ministry of Labor and Employment (Brazil, 11/2001)** TWA 8 hours: 78 ppm. TWA 8 hours: 340 mg/m³.
crystalline silica, non-respirable powder (>10 microns)	**ACGIH TLV (United States, 1/2026) [Silica, crystalline]** TWA 8 hours: 0.025 mg/m³. Form: Respirable fraction.
crystalline silica, respirable powder (<10 microns)	**ACGIH TLV (United States, 1/2026) [Silica, crystalline]** TWA 8 hours: 0.025 mg/m³. 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. 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.

Section 8. Exposure controls/personal protection

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 : For prolonged or repeated handling, use the following type of gloves:

Not recommended: nitrile rubber
Recommended: polyvinyl alcohol (PVA), butyl rubber, Viton®

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : 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 : Colorless.

Odor : Aromatic.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 20°C (68°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 : 1.21

Solubility(ies) :

Media	Result
cold water	Not soluble

Section 9. Physical and chemical properties

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)

Viscosity : 30 - <40 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.

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 metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

May be harmful in contact with skin.
Causes serious eye damage.
Causes skin irritation.
May cause cancer.
May cause respiratory irritation.

Acute toxicity

Product/ingredient name	Result	Dose
xylene	Rat - Oral - LD50	4.3 g/kg
	Rabbit - Dermal - LD50	1.7 g/kg
Aluminium powder (stabilized)	Rat - Oral - LD50	>15900 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5 mg/l [4 hours]
Wollastonite	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Rat - Oral - LD50	>5 g/kg
	Rat - Inhalation - LC50 Dusts and mists	>5.2 mg/l [4 hours]
1-methoxy-2-propanol	Rabbit - Dermal - LD50	13 g/kg
	Rat - Oral - LD50	5.2 g/kg

Section 11. Toxicological information

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Rat - Inhalation - LC50 Vapor Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists	>7000 ppm [6 hours] 7.01 g/kg >5.3 mg/l [4 hours]
ethylbenzene	Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Inhalation - LC50 Vapor	3.5 g/kg 17.8 g/kg 17.8 mg/l [4 hours]
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	Not available	Not available
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
xylene	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours	-
Aluminium powder (stabilized)	Not available	Not available	Not available
Wollastonite	Not available	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available	Not available
1-methoxy-2-propanol	Not available	Not available	Not available
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Not available	Not available	Not available
ethylbenzene	Not available	Not available	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	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 damage.

Respiratory : Based on available data, the classification criteria are not met.

Sensitization

Section 11. Toxicological information

Product/ingredient name	Species	Result
xylene	Not available	Not available
Aluminium powder (stabilized)	Not available	Not available
Wollastonite	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available
1-methoxy-2-propanol	Not available	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Not available	Not available
ethylbenzene	Not available	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Species	Result
xylene	Not available	Not available
Aluminium powder (stabilized)	Not available	Not available
Wollastonite	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available
1-methoxy-2-propanol	Not available	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Not available	Not available
ethylbenzene	Not available	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	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

Product/ingredient name	Species	Result
xylene	Not available	Not available
Aluminium powder (stabilized)	Not available	Not available
Wollastonite	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available
1-methoxy-2-propanol	Not available	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Not available	Not available
ethylbenzene	Not available	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available

Section 11. Toxicological information

Conclusion/Summary : May cause cancer.

Classification

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
Wollastonite	-	3	-
ethylbenzene	-	2B	-
toluene	-	3	-
crystalline silica, non-respirable powder (>10 microns)	+	1	Known to be a human carcinogen.
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
xylene	Not available	Not available
Aluminium powder (stabilized)	Not available	Not available
Wollastonite	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available
1-methoxy-2-propanol	Not available	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Not available	Not available
ethylbenzene	Not available	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	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)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
Aluminium powder (stabilized)	None.	None.	None.
Wollastonite	None.	None.	None.
Solvent naphtha (petroleum), heavy arom.	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	None.	None.	None.
ethylbenzene	None.	None.	None.
1-Butanol, titanium(4+) salt (4:1), homopolymer	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
crystalline silica, non-respirable powder (>10 microns)	None.	None.	None.
crystalline silica, respirable powder (<10 microns)	None.	None.	None.

Section 11. Toxicological information

Conclusion/Summary : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
xylene	None.	None.	None.
Aluminium powder (stabilized)	None.	None.	None.
Wollastonite	None.	None.	None.
Solvent naphtha (petroleum), heavy arom.	None.	None.	None.
1-methoxy-2-propanol	None.	None.	None.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	None.	None.	None.
ethylbenzene	Category 2	-	hearing organs
1-Butanol, titanium(4+) salt (4:1), homopolymer	None.	None.	None.
crystalline silica, non-respirable powder (>10 microns)	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: brain, eye, lens or cornea.
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, heart, upper respiratory tract, skin, central nervous system (CNS), ears.

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
Aluminium powder (stabilized)	None.
Wollastonite	None.
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), heavy arom.	None.
1-methoxy-2-propanol	None.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	None.
ethylbenzene	ASPIRATION HAZARD - Category 1
ethylbenzene	None.
1-Butanol, titanium(4+) salt (4:1), homopolymer	None.
crystalline silica, non-respirable powder (>10 microns)	None.
crystalline silica, respirable powder (<10 microns)	None.

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 : May cause respiratory irritation.

Skin contact : May be harmful in contact with skin. Causes skin irritation. Defatting to the skin.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. 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.

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

Potential chronic health effects

Section 11. Toxicological information

Product/ingredient name	Result
xylene	Not available
Aluminium powder (stabilized)	Not available
Wollastonite	Not available
Solvent naphtha (petroleum), heavy arom.	Not available
1-methoxy-2-propanol	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Not available
ethylbenzene	Not available
1-Butanol, titanium(4+) salt (4:1), homopolymer	Not available
crystalline silica, non-respirable powder (>10 microns)	Not available
crystalline silica, respirable powder (<10 microns)	Not available

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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)
SIGMATHERM 540	9599.8	4318.3	Not available	47.1	6.0
xylene	4300	1700	Not available	11	1.5
Aluminium powder (stabilized)	Not available	Not available	Not available	Not available	Not available
Wollastonite	Not available	Not available	Not available	Not available	Not available
Solvent naphtha (petroleum), heavy arom.	Not available	Not available	Not available	Not available	Not available
1-methoxy-2-propanol	5200	13000	Not available	Not available	Not available
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	7010	Not available	Not available	Not available	Not available
ethylbenzene	3500	17800	Not available	17.8	1.5
1-Butanol, titanium(4+) salt (4:1), homopolymer	500	Not available	Not available	Not available	Not available
crystalline silica, non-respirable powder (>10 microns)	Not available	Not available	Not available	Not available	Not available
crystalline silica, respirable powder (<10 microns)	Not available	Not available	Not available	Not available	Not available

Section 11. Toxicological information

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
Solvent naphtha (petroleum), heavy arom.	NOEL - Fresh water	Daphnia	0.48 mg/l [21 days]
1-methoxy-2-propanol	Acute - LC50 - Fresh water	Fish - Goldfish	>4500 mg/l [96 hours]
	Acute - LC50	Daphnia - Daphnia	23300 mg/l [48 hours]
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Acute - EC50 - Fresh water	Algae	255 mg/l [72 hours]
	Acute - EC50	Daphnia	473 mg/l [48 hours]
	Acute - LC50	Fish	55 mg/l [96 hours]
ethylbenzene	Acute - EC50 - Fresh water	Daphnia	1.8 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - *Ceriodaphnia dubia*	1 mg/l

Conclusion/Summary : Not available.

Persistence/degradability

Product/ingredient name	Test	Result	Dose / Inoculum
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	-	37% [28 days] - Not readily	-
ethylbenzene	-	79% [10 days] - Readily	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	-	-	Not readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
Aluminium powder (stabilized)	None.	None.	None.
Wollastonite	None.	None.	None.
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	None.	High
1-methoxy-2-propanol	<1	None.	Low
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	None.	None.	None.
ethylbenzene	3.6	79.43	Low
1-Butanol, titanium(4+) salt (4:1), homopolymer	None.	None.	None.

Section 12. Ecological information

crystalline silica, non-respirable powder (>10 microns)	None.	None.	None.
crystalline silica, respirable powder (<10 microns)	None.	None.	None.

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	Brazil (ANTT)	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

Brazil : None identified.

Risk number : 33

Section 14. Transport information

IMDG : None identified.

IATA : None identified.

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 : **10/22/2025**

Version : **5**

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.

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