

# SAFETY DATA SHEET

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



Date of issue/Date of revision 5 November 2025

Version 2.07

## Section 1. Chemical product and company identification

Product code : 000001200007  
Product name : SIGMA SHIELD 420 BASE RED BROWN  
Product name : SIGMA SHIELD 420 BASE RED BROWN  
Other means of identification : 00192368  
Product type : Liquid.

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

Product use : Professional applications, Used by spraying, Application by non spray methods..  
Use of the substance/ mixture : Coating.  
Uses advised against : Not applicable.

Supplier's details : PPG Coatings (Kunshan) Co., Ltd  
53 Jinyang Road, Lujia Town,  
215331 Kunshan City, Jiangsu Province, P.R. China  
Tel: 86 512 57678859 Fax: 86 512 57678857

Emergency telephone number (with hours of operation) : 00 86 532 83889090

## Section 2. Hazards identification

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

### Emergency overview

Liquid.  
Brownish-red.  
Aromatic.  
Flammable liquid and vapour.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Harmful if inhaled.  
Suspected of causing cancer.  
May cause damage to organs through prolonged or repeated exposure.  
Toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.  
Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Immediately call a POISON CENTER or doctor.

See Section 12 for environmental precautions.

## Section 2. Hazards identification

### Classification of the substance or mixture

- : FLAMMABLE LIQUIDS - Category 3
- ACUTE TOXICITY (inhalation) - Category 4
- SKIN CORROSION/IRRITATION - Category 2
- SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
- SKIN SENSITISATION - Category 1
- CARCINOGENICITY - Category 2
- SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
- SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2
- LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 81.1%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 56.2%

### GHS label elements

#### Hazard pictograms

- :
- 
- 
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#### Signal word

- : Danger

#### Hazard statements

- : Flammable liquid and vapour.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye damage.
- Harmful if inhaled.
- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.
- Toxic to aquatic life.
- Toxic to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Ground and bond container and receiving equipment. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

- : Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

#### Suitable extinguishing media

- : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

#### Storage

- : Store locked up. Store in a well-ventilated place. Keep cool.

#### Disposal

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

## Section 2. Hazards identification

**Physical and chemical hazards** : Flammable liquid and vapour.

**Health hazards** : Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. Suspected of causing cancer. Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

### Symptoms related to the physical, chemical and toxicological characteristics

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

**Inhalation** : No specific data.

**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 as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

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

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

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : 00192368

### CAS number/other identifiers

**CAS number** : Not applicable.

## Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
bis-[4-(2,3-epoxipropoxy)phenyl]propane	10 - <25	1675-54-3
Talc , not containing asbestos fibres	1 - <10	14807-96-6
xylene isomers mixture	1 - <10	1330-20-7
crystalline silica, respirable powder (<10 microns)	1 - <10	14808-60-7
4-nonylphenol, branched	1 - <10	84852-15-3
2-methylpropan-1-ol	1 - <10	78-83-1
ethylbenzene	1 - <10	100-41-4
Phenol, styrenated	0.1 - <1	61788-44-1

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 recognised skin cleanser. Do NOT use solvents or thinners.

**Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

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

**Inhalation** : Harmful if inhaled.

**Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion** : Corrosive to the digestive tract. Causes burns.

#### Over-exposure signs/symptoms

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

**Inhalation** : No specific data.

**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

## Section 4. First aid measures

### 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.

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

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical**

: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is 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  
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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

## Section 6. Accidental release measures

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

### Methods and material for containment and cleaning up

#### **Small spill**

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

#### **Large spill**

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt 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 breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### **Conditions for safe storage, including any incompatibilities**

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Talc , not containing asbestos fibres	<b>GBZ 2.1 (China, 7/2024)</b> PC-TWA 8 hours: 3 mg/m <sup>3</sup> . Form: Total dust. PC-TWA 8 hours: 1 mg/m <sup>3</sup> . Form: Respirable dust.
xylene	<b>GBZ 2.1 (China, 7/2024) [Xylene]</b> PC-TWA 8 hours: 50 mg/m <sup>3</sup> . PC-STEL 15 minutes: 100 mg/m <sup>3</sup> .
crystalline silica, respirable powder (<10 microns)	<b>GBZ 2.1 (China, 7/2024)</b> PC-TWA 8 hours: 0.7 mg/m <sup>3</sup> . Form: respirable dust, 10% ≤ free SiO <sub>2</sub> ≤ 50%. PC-TWA 8 hours: 0.3 mg/m <sup>3</sup> . Form: respirable dust, 50% < free SiO <sub>2</sub> ≤ 80%. PC-TWA 8 hours: 0.2 mg/m <sup>3</sup> . Form: respirable dust, free SiO <sub>2</sub> > 80%.
2-methylpropan-1-ol	<b>ACGIH TLV (United States, 1/2024)</b> TWA 8 hours: 50 ppm. TWA 8 hours: 152 mg/m <sup>3</sup> .
ethylbenzene	<b>GBZ 2.1 (China, 7/2024)</b> PC-TWA 8 hours: 100 mg/m <sup>3</sup> . PC-STEL 15 minutes: 150 mg/m <sup>3</sup> .

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

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour 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. 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**

## Section 8. Exposure controls/personal 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. 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.

**Colour** : Brownish-red.

**Odour** : Aromatic.

**Boiling point** : >37.78°C (>100°F)

**Flash point** : Closed cup: 33°C (91.4°F)

**Lower and upper explosive (flammable) limits** : Not available.

**Relative density** : 1.75

	Media	Result
	cold water	Not soluble

**Viscosity** :

Dynamic (room temperature): Not available.  
 Kinematic (room temperature): Not available.  
 Kinematic (40°C): >21 mm<sup>2</sup>/s

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 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: oxidising 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

#### Acute toxicity

Product/ingredient name	Result	Dose
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Rabbit - Dermal - LD50	23000 mg/kg
-	Rat - Oral - LD50	15000 mg/kg
xylene isomers mixture	Rat - Oral - LD50	4.3 g/kg
-	Rabbit - Dermal - LD50	1.7 g/kg
4-nonylphenol, branched	Rabbit - Dermal - LD50	2.14 g/kg
-	Rat - Oral - LD50	1300 mg/kg
2-methylpropan-1-ol	Rat - Oral - LD50	2830 mg/kg
-	Rabbit - Dermal - LD50	2460 mg/kg
-	Rat - Inhalation - LC50 Vapour	24.6 mg/l [4 hours]
ethylbenzene	Rat - Oral - LD50	3.5 g/kg
-	Rabbit - Dermal - LD50	17.8 g/kg
-	Rat - Inhalation - LC50 Vapour	17.8 mg/l [4 hours]
Phenol, styrenated	Rabbit - Dermal - LD50	>5010 mg/kg
-	Rat - Oral - LD50	3550 mg/kg

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

#### Skin corrosion/irritation

Product/ingredient name	Species	Dose	Score
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Rabbit - Skin - Erythema/Eschar	Duration of treatment/exposure: 4 hours	Irritation score: 0.8
-	Rabbit - Skin - Oedema	Duration of treatment/exposure: 4 hours	Irritation score: 0.5
-	Rabbit - Skin - Mild irritant	Duration of treatment/exposure: 4 hours	-
xylene isomers mixture	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours	-
4-nonylphenol, branched	Rabbit - Skin - Erythema/Eschar	-	Irritation score: 4

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

#### Serious eye damage/eye irritation

## Section 11. Toxicological information

Product/ingredient name	Species	Dose	Score
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit - Eyes - Redness of the conjunctivae	Duration of treatment/exposure: 24 hours	Irritation score: 0.4
-	Rabbit - Eyes - Mild irritant	Duration of treatment/exposure: 24 hours Fully reversible in 7 days or less	-

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

### Respiratory corrosion/irritation

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

### Sensitisation

Product/ingredient name	Species	Result
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Mouse - skin	<u>Result:</u> Sensitising
Phenol, styrenated	Mouse - skin OECD 429	<u>Result:</u> Sensitising

### Skin

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

### Respiratory

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

### Mutagenicity

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

### Carcinogenicity

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

### Classification

Product/ingredient name	IARC
bis-[4-(2,3-epoxipropoxi)phenyl]propane	3
xylene isomers mixture	3
crystalline silica, respirable powder (<10 microns)	1
ethylbenzene	2B

### Reproductive toxicity

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

### Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Talc , not containing asbestos fibres	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
2-methylpropan-1-ol	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
-	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
crystalline silica, respirable powder (<10 microns)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 1
ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

### Aspiration hazard

## Section 11. Toxicological information

Product/ingredient name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- 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 as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.

- Potential delayed effects** : Not available.

#### Potential chronic health effects

- Conclusion/Summary** : There are no data available on the mixture itself.
- General** : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing 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

## Section 11. Toxicological information

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMA SHIELD 420 BASE RED BROWN	16563.2	6269.2	N/A	24.1	3.1
bis-[4-(2,3-epoxipropoxy)phenyl]propane	15000	23000	N/A	N/A	N/A
xylene isomers mixture	4300	1700	N/A	11	1.5
4-nonylphenol, branched	1300	2140	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
Phenol, styrenated	3550	N/A	N/A	N/A	N/A

### Other information :

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)bisoxirane	Chronic - NOEC	Daphnia	0.3 mg/l [21 days]
4-nonylphenol, branched	Acute - LC50 - Fresh water Acute - LC50 Acute - EC50	Daphnia - <i>daphnia magna</i> Fish Crustaceans - Water flea - <i>Moina macrocopa</i>	1.8 mg/l [48 hours] 0.221 mg/l [96 hours] 0.044 mg/l [48 hours]
2-methylpropan-1-ol	Acute - EC50	Algae - Green algae - <i>Raphidocelis subcapitata</i>	0.04 mg/l [72 hours]
ethylbenzene	Acute - EC50 Acute - EC50 - Fresh water Chronic - NOEC - Fresh water	Daphnia Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	1100 mg/l [48 hours] 1.8 mg/l [48 hours] 1 mg/l
Phenol, styrenated	Acute - EC50	Daphnia	3.8 mg/l [48 hours]

Conclusion/Summary : Not available.

### Persistence/degradability

Product/ingredient name	Test	Result	Dose / Inoculum
ethylbenzene	-	79% [10 days] - Readily	
Phenol, styrenated	OECD 301F	7% [28 days] - Not readily	

Conclusion/Summary : Not available.

## Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis-[4-(2,3-epoxipropoxy)phenyl]propane	-	-	Not readily
xylene isomers mixture	-	-	Readily
ethylbenzene	-	-	Readily
Phenol, styrenated	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene isomers mixture	3.12	7.4 to 18.5	Low
4-nonylphenol, branched	5.4	251.19 [ASTM E 1022-84]	Low
2-methylpropan-1-ol	1	-	Low
ethylbenzene	3.6	79.43	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 minimised 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	China	UN	IMDG	IATA
<b>UN number</b>	UN1263	UN1263	UN1263	UN1263
<b>UN proper shipping name</b>	PAINT	PAINT	PAINT	PAINT
<b>Transport hazard class(es)</b>	3	3	3	3
<b>Packing group</b>	III	III	III	III

## Section 14. Transport information

<b>Environmental hazards</b>	Yes. The environmentally hazardous substance mark is not required. Not applicable.	Yes. The environmentally hazardous substance mark is not required. Not applicable.	Yes.	Yes. The environmentally hazardous substance mark is not required. Not applicable.
<b>Marine pollutant substances</b>			(bis-[4-(2,3-epoxipropoxy)phenyl]propane)	

### Additional information

**CN** : None identified.

**UN** : None identified.

**IMDG** : The marine pollutant mark is not required when transported in sizes of  $\leq 5$  L or  $\leq 5$  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

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

**References** : Production Safety Law of the People's Republic of China  
Code of Occupational Disease Prevention of the People's Republic of China  
Environmental Protection Law of the People's Republic of China  
Fire Control Law of the People's Republic of China  
Regulations on the Control over Safety of Dangerous Chemicals  
Occupational exposure limits for hazardous agents in the workplace chemical hazardous agents (GBZ2.1)  
Specification for classification and labelling of chemicals according to Part 1: General rules (GB 30000.1-2024)  
Safety data sheet for chemical products - Content and order of sections (GB/T16483)  
Guidance on the compilation of safety data sheet for chemical products (GB/T17519)  
General rule for preparation of precautionary label for chemicals (GB15258)  
Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB30000.2-29)

## Section 16. Other information

### History

**Date of issue/Date of revision** : 5 November 2025

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**First issue date** : 10/24/2023

## Section 16. Other information

**Prepared by**

: EHS

**Key to abbreviations**

: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
UN = United Nations



Indicates information that has changed from previously issued version.

**Notice to reader**

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