SAFETY DATA SHEET





Date of issue/Date of revision

Version 1.02

24 August 2021

Section 1. Chemical product and company identification

Product code : 00445414

Product name : SIGMASHIELD 880 BASE RAL 1018
Product name : SIGMASHIELD 880 BASE RAL 1018

Product type : Liquid.

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

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against

: Not applicable.

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

53 Jinyang Road, Lujia Town,

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

Emergency telephone number (with hours of

operation)

: 00 86 532 83889090

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview

Liquid.

Characteristic.

Flammable liquid and vapor.

May be harmful if swallowed or in contact with skin.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Harmful if inhaled.

Suspected of causing genetic defects.

Suspected of causing cancer.

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

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 SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. If eye irritation persists: Get medical advice or attention.

See Section 12 for environmental precautions.

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 2. Hazards identification

Classification of the substance or mixture

Product code 00445414

: FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2

CARCINOGENICITY - Category 2

AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 28.3%

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 51.4%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 79%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 48.9%

GHS label elements Hazard pictograms







Signal word

: Warning

Hazard statements

: Flammable liquid and vapor.

May be harmful if swallowed or in contact with skin.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eve irritation.

Harmful if inhaled.

Suspected of causing genetic defects.

Suspected of causing cancer.

Harmful to aquatic life.

Harmful 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 eve 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. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 2. Hazards identification

Response

: 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 SWALLOWED: 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 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. 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.

Suitable extinguishing

media

: Use dry chemical, CO₂, 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.

Physical and chemical

hazards

: Flammable liquid and vapor.

Health hazards

: May be harmful if swallowed or in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. Suspected of causing genetic defects. Suspected of causing cancer. 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 or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

Ingestion : No specific data.

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects :

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Environmental hazards : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 2. Hazards identification

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

result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable.

Ingredient name	%	CAS number
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	10 - <25	25068-38-6
Talc, not containing asbestiform fibers	10 - <25	14807-96-6
xylene isomers mixture	1 - <10	1330-20-7
Epoxy Resin (700 <mw<=1100)< td=""><td>1 - <10</td><td>25036-25-3</td></mw<=1100)<>	1 - <10	25036-25-3
Phenol, methylstyrenated	1 - <10	68512-30-1
2-methylpropan-1-ol	1 - <10	78-83-1
2,3-epoxypropyl neodecanoate	1 - <10	26761-45-5
ethylbenzene	1 - <10	100-41-4

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled.

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

May cause an allergic skin reaction.

Ingestion : May be harmful if swallowed.

Over-exposure signs/symptoms

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Section 4. First aid measures

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 dryness cracking

Ingestion : No specific data.

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

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

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

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. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: 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 nitrogen oxides

halogenated compounds 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.

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Section 5. Fire-fighting measures

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Product code 00445414

: 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 or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

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

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

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 noncombustible, 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. 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.

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Section 7. Handling and storage

including any incompatibilities

Conditions for safe storage, : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in 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
Talc, not containing asbestiform fibers	GBZ 2.1 (China, 8/2019).
	PC-TWA: 1 mg/m³ 8 hours. Form:
	respirable dust
	PC-TWA: 3 mg/m³ 8 hours. Form: total dust
xylene isomers mixture	GBZ 2.1 (China, 8/2019).
	PC-STEL: 100 mg/m³ 15 minutes.
	PC-TWA: 50 mg/m ³ 8 hours.
2-methylpropan-1-ol	ACGIH TLV (United States, 3/2020).
	TWA: 152 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours.
ethylbenzene	GBZ 2.1 (China, 8/2019).
•	PC-STEL: 150 mg/m³ 15 minutes.
	PC-TWA: 100 mg/m ³ 8 hours.

procedures

Recommended monitoring: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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, 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

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Section 8. Exposure controls/personal protection

Hygiene measures

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

Eye protection

Skin protection

: Chemical splash goggles.

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.

estimate

: butyl rubber

Body protection

Gloves

: 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.

Odor : Characteristic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 30°C (86°F)

Lower and upper explosive

(flammable) limits

: Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)

Relative density : 1.35

Solubility : Insoluble in the following materials: cold water.

Viscosity : Kinematic (40°C): >21 mm²/s

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Product name SIGMASHIELD 880 BASE RAL 1018

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 awa

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

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds metal oxide/

oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Result	Species	Dose	Exposure
LD50 Dermal	Rabbit	>2 g/kg	-
LD50 Oral	Rat	>2 g/kg	-
LD50 Dermal	Rabbit	1.7 g/kg	-
LD50 Oral	Rat	4.3 g/kg	-
LD50 Dermal	Rat	>2000 mg/kg	-
LD50 Oral	Rat	>2000 mg/kg	-
LD50 Dermal	Rabbit	>2000 mg/kg	-
LD50 Oral	Rat	>2000 mg/kg	-
LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
LD50 Dermal	Rabbit	2460 mg/kg	-
LD50 Oral	Rat	2830 mg/kg	-
LD50 Dermal	Rat	3800 mg/kg	-
LD50 Oral	Rat	9.6 g/kg	-
LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
LD50 Dermal	Rabbit	17.8 g/kg	-
LD50 Oral	Rat	3.5 g/kg	-
	LD50 Dermal LD50 Oral LD50 Dermal LD50 Oral LD50 Dermal LD50 Oral LD50 Dermal LD50 Oral LC50 Inhalation Vapor LD50 Dermal LD50 Oral LD50 Cral LD50 Cral LD50 Cral LD50 Dermal LD50 Dermal LD50 Dermal LD50 Oral LD50 Oral LD50 Oral	LD50 Dermal Rabbit LD50 Oral Rat LD50 Dermal Rabbit LD50 Oral Rat LD50 Dermal Rat LD50 Oral Rat LD50 Dermal Rabbit LD50 Oral Rat LC50 Inhalation Vapor LD50 Dermal Rat LD50 Oral Rat LD50 Dermal Rat LD50 Dermal Rat LD50 Dermal Rat LD50 Oral Rat LD50 Oral Rat LD50 Oral Rat LD50 Oral Rat LD50 Dermal Rat	LD50 Dermal Rabbit >2 g/kg LD50 Oral Rat >2 g/kg LD50 Dermal Rabbit 1.7 g/kg LD50 Oral Rat 4.3 g/kg LD50 Dermal Rat >2000 mg/kg LD50 Oral Rat >2000 mg/kg LD50 Dermal Rabbit >2000 mg/kg LD50 Oral Rat >2000 mg/kg LC50 Inhalation Vapor Rat 24.6 mg/l LD50 Dermal Rat 2830 mg/kg LD50 Dermal Rat 3800 mg/kg LD50 Oral Rat 9.6 g/kg LC50 Inhalation Vapor Rat 17.8 mg/l LC50 Inhalation Vapor Rat 17.8 mg/l LD50 Dermal Rabbit 17.8 g/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	Skin - Moderate irritant	Rabbit	-	-	-
16311	Eyes - Moderate irritant	Rabbit	_	_	_
	Eyes - Mild irritant	Rabbit	-	100 mg	_
	Skin - Moderate irritant	Rabbit	-	24 hours 500 Ul	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

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Section 11. Toxicological information

xylene isomers mixture	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

Sensitization

Product/ingredient name	Route of exposure	Species	Result
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	skin	Mouse	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
Talc, not containing asbestiform fibers	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	-

Aspiration hazard

Name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled.

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

May cause an allergic skin reaction.

Ingestion : May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

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Section 11. Toxicological information

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 dryness cracking

Ingestion : No specific data.

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : 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.

Suspected of causing cancer. Risk of cancer depends on duration and level of Carcinogenicity

exposure.

Mutagenicity : Suspected of causing genetic defects.

: No known significant effects or critical hazards. Reproductive toxicity

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 880 BASE RAL 1018 reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	4968	2869.6	N/A	34.1	4.4
	2500	2500	N/A	N/A	N/A
xylene isomers mixture Epoxy Resin (700 <mw<=1100) methylstyrenated<="" phenol,="" td=""><td>4300</td><td>1700</td><td>N/A</td><td>11</td><td>1.5</td></mw<=1100)>	4300	1700	N/A	11	1.5
	2500	2500	N/A	N/A	N/A
	2500	2500	N/A	N/A	N/A
2-methylpropan-1-ol 2,3-epoxypropyl neodecanoate ethylbenzene	2830	2460	N/A	24.6	N/A
	9600	3800	N/A	N/A	N/A
	3500	17800	N/A	17.8	1.5

Other information

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Section 11. Toxicological information

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 vapor/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	Exposure
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	Chronic NOEC 0.3 mg/l	Daphnia	21 days
2-methylpropan-1-ol 2,3-epoxypropyl neodecanoate	Acute EC50 1100 mg/l Acute EC50 3.5 mg/l	Daphnia Algae	48 hours 96 hours
ethylbenzene	Acute EC50 4.8 mg/l Acute LC50 9.6 mg/l Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Daphnia Daphnia - Ceriodaphnia dubia	48 hours 96 hours 48 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
reaction product: bisphenol-A-(epichlorhydrin); epoxy	OECD 301F	5 % - 28 days	-	-
resin ethylbenzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	-	-	Not readily
xylene isomers mixture 2,3-epoxypropyl neodecanoate	-	-	Readily Not readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	low
xylene isomers mixture	3.12	7.4 to 18.5	low
Phenol, methylstyrenated	3.627	-	low
2-methylpropan-1-ol	1	-	low
2,3-epoxypropyl	4.4	-	high
neodecanoate			
ethylbenzene	3.6	79.43	low

Mobility in soil

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 12. Ecological information

Soil/water partition coefficient (Koc)

: 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 nonrecyclable 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

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

Additional information

CN : None identified. : None identified. UN **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.

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 14. Transport information

Transport in bulk according: Not applicable.

to IMO instruments

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)

General rule for classification and hazard communication of chemicals (GB13690) 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

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Version

: 1.02 EHS

: 24 August 2021

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

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Product name SIGMASHIELD 880 BASE RAL 1018

Section 16. Other information

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

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