# SAFETY DATA SHEET

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



Date of issue/Date of revision

Version 8.03

6 January 2020

# Section 1. Chemical product and company identification

Product code : 00230421

Product name : SIGMASHIELD 220 (K) BASE YELLOWGREEN Product name : SIGMASHIELD 220 (K) BASE YELLOWGREEN

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.

Green.

Amine-like.

Flammable liquid and vapor.

Harmful if inhaled.

May be harmful in contact with skin.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

Prolonged or repeated contact may dry skin and cause irritation.

Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Call a POISON CENTER or physician if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention.

See Section 12 for environmental precautions.

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

### Section 2. Hazards identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3 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 CARCINOGENICITY - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

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

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 33%

(Oral), 55.8% (Dermal), 76.8% (Inhalation)

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 55.6%

**GHS label elements** 

**Hazard pictograms** 







Signal word : Danger

**Hazard statements** : Flammable liquid and vapor.

Harmful if inhaled.

May be harmful in contact with skin.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure.

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. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical 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 attention.

Suitable extinguishing media

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

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

### Section 2. Hazards identification

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**: Harmful if inhaled. May be harmful in contact with skin. Causes serious eye irritation.

Causes skin irritation. Prolonged or repeated contact may dry skin and cause

irritation. May cause an allergic skin reaction. Suspected of causing cancer. Causes

damage to organs through prolonged or repeated exposure.

### 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 with long lasting effects.

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

**CAS** number/other identifiers

**CAS number** : Not applicable.

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

# Section 3. Composition/information on ingredients

Ingredient name	%	<b>CAS</b> number
rystalline silica, respirable powder (<10 microns)	10 - <25	14808-60-7
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	10 - <25	25068-38-6
Talc , not containing asbestiform fibres	10 - <25	14807-96-6
xylene isomers mixture	1 - <10	1330-20-7
Epoxy Resin (700 <mw<=1100)< td=""><td>1 - &lt;10</td><td>25036-25-3</td></mw<=1100)<>	1 - <10	25036-25-3
Phenol, methylstyrenated	1 - <10	68512-30-1
1-methoxy-2-propanol	1 - <10	107-98-2
4-methylpentan-2-one	1 - <10	108-10-1
1,2,4,5-tetramethyl benzene	1 - <10	95-93-2
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** : No known significant effects or critical hazards.

### **Over-exposure signs/symptoms**

**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.

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

### 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. Fire-fighting 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 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

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.

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

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

### Section 6. Accidental release measures

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 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). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

## Section 7. Handling and storage

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
vystalline silica, respirable powder (<10 microns)	GBZ 2.1 (China, 4/2007).
	PC-TWA: 0.7 mg/m <sup>3</sup> 8 hours. Form:
	respirable dust
Talc , not containing asbestiform fibres	GBZ 2.1 (China, 4/2007).
	PC-TWA: 1 mg/m <sup>3</sup> 8 hours. Form:
	respirable dust
	PC-TWA: 3 mg/m <sup>3</sup> 8 hours. Form: total dust
xylene isomers mixture	GBZ 2.1 (China, 4/2007).
	PC-STEL: 100 mg/m³ 15 minutes.
	PC-TWA: 50 mg/m <sup>3</sup> 8 hours.
1-methoxy-2-propanol	ACGIH TLV (United States, 3/2019).
	STEL: 369 mg/m³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 184 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours.
4-methylpentan-2-one	ACGIH TLV (United States, 3/2019).
	STEL: 75 ppm 15 minutes.
	TWA: 20 ppm 8 hours.
ethylbenzene	GBZ 2.1 (China, 4/2007).
	PC-STEL: 150 mg/m³ 15 minutes.
	PC-TWA: 100 mg/m <sup>3</sup> 8 hours.

# Recommended monitoring procedures

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.

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

## Section 8. Exposure controls/personal protection

#### **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 Skin protection

: Chemical splash goggles.

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.
Color : Green.
Odor : Amine-like.

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: 1.48% Upper: 13.74% (1-methoxy-2-propanol)

Relative density : 1.4

**Solubility** : Insoluble in the following materials: cold water.

Viscosity : Kinematic (40°C): >0.21 cm<sup>2</sup>/s

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

## 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 halogenated compounds metal oxide/oxides

# **Section 11. Toxicological information**

### Information on toxicological effects

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	11.4 g/kg	-
xylene isomers mixture	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Epoxy Resin (700 <mw<=1100)< td=""><td>LD50 Dermal</td><td>Rat</td><td>&gt;2000 mg/kg</td><td>-</td></mw<=1100)<>	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	12.3 mg/l	4 hours
	LD50 Oral	Rat	2.08 g/kg	-
1,2,4,5-tetramethyl benzene	LD50 Oral	Rat	6700 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	Skin - Moderate irritant	Rabbit	-	-	-
xylene isomers mixture	Eyes - Moderate irritant Skin - Moderate irritant	Rabbit Rabbit	-  -	- 24 hours 500 mg	-

### **Sensitization**

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

# **Section 11. Toxicological information**

•	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	Category	Route of exposure	Target organs
Talc , not containing asbestiform fibres	Category 3	Not applicable.	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects
4-methylpentan-2-one	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
	Category 1 Category 2		Not determined Not determined

#### **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** : No known significant effects or critical hazards.

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

**Eye contact** : Adverse symptoms may include the following:

pain or irritation watering redness

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

### **Section 11. Toxicological information**

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 a

: Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects: Not available.

Potential chronic health effects

General : Causes 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.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMASHIELD 220 (K) BASE YELLOWGREEN	11400	2526.6	N/A	27.9	3.6
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	11400	2500	N/A	N/A	N/A
xylene isomers mixture	4300	1100	N/A	11	1.5
Epoxy Resin (700 <mw<=1100)< td=""><td>2500</td><td>2500</td><td>N/A</td><td>N/A</td><td>N/A</td></mw<=1100)<>	2500	2500	N/A	N/A	N/A
Phenol, methylstyrenated	2500	2500	N/A	N/A	N/A
1-methoxy-2-propanol	5200	13000	N/A	N/A	N/A
4-methylpentan-2-one	2080	N/A	N/A	12.3	1.5
1,2,4,5-tetramethyl benzene	6700	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

# **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
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
ethylbenzene	Acute LC50 >4500 mg/l Fresh water Acute LC50 150 to 200 mg/l Fresh water	Fish Fish	96 hours 96 hours

### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	OECD 301F	5 % - 28 days	-	-
Product/ingredient name	Aquatic half-life	Photolysis	Biode	gradability

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

### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
eaction product: bisphenol-	3	31	low
A-(epichlorhydrin); epoxy			
resin			
xylene isomers mixture	3.16	7.4 to 18.5	low
4-methylpentan-2-one	1.31	-	low
1,2,4,5-tetramethyl benzene	4	-	high
ethylbenzene	3.15	79.43	low

### **Mobility in soil**

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 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

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

## Section 13. Disposal considerations

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

# **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**

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

# 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

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**Product name SIGMASHIELD 220 (K) BASE YELLOWGREEN** 

## Section 15. Regulatory information

chemicals (GB30000.2-29)

### Section 16. Other information

**History** 

Date of issue/Date of

revision

: 6 January 2020

Date of previous issue

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Version

: 8.03 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.

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