SAFETY DATA SHEET

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



Date of issue/Date of revision 30 May 2018

Version 16

Section	1. Ide	entifica	ation	

Product code	: 00146096
Product name	: SIGMA ECOFLEET 530 BROWN
产品名称	: 无锡自抛光防污漆530 棕色
Product type	: Liquid.
Relevant identified uses of	f the substance or mixture and uses advised against
Product use	: Professional applications, Used by spraying.
Use of the substance/ mixture	: Antifouling products
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)	: 86 532 83889090

Section 2. Hazards identification

Emergency overview

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

Liquid. Brown. Aromatic. Flammable liquid and vapor. Harmful if inhaled. May be harmful if swallowed or in contact with skin. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects. Prolonged or repeated contact may dry skin and cause irritation.

IF exposed or concerned: Get medical attention. IF INHALED: Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: 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 IN EYES: Immediately call a POISON CENTER or physician.

See Section 12 for environmental precautions.

	Section 2. Hazards identification			
Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 Fercentage of the mixture consisting of ingredient(s) of unknown toxicity: 15.9% (Oral), 71.2% (Dermal), 34.2% (Inhalation) Fercentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 27.9% 			
GHS label elements				
Hazard pictograms				
Signal word	: Danger			
Hazard statements	 Flammable liquid and vapor. Harmful if inhaled. May be harmful if swallowed or in contact with skin. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. Very 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. 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. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.			
Response	: Collect spillage. 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 SWALLOWED: 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. Immediately call a POISON CENTER or physician.			
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 vapor.
Health hazards	: Harmful if inhaled. May be harmful if swallowed or in contact with skin. Causes serious eye damage. Causes skin irritation. Prolonged or repeated contact may dry skin and cause irritation. May cause an allergic skin reaction. Suspected of causing cancer.
Symptoms related to the phy	sical, 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 effec	ts and also 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	: Very toxic 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
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CAS number/other identifiers		
CAS number	;	Not applicable.

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Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
dicopper oxide	25 - <40	1317-39-1
zinc oxide	10 - <25	1314-13-2
rosin	10 - <25	8050-09-7
xylene isomers mixture	1 - <10	1330-20-7
5-methylhexan-2-one	1 - <10	110-12-3
Talc , not containing asbestiform fibres	1 - <10	14807-96-6
4,5-dichloro-2-octyl-2H-isothiazol-3-one	1 - <10	64359-81-5
ethylbenzene	1 - <10	100-41-4
carbon black, respirable powder	1 - <10	1333-86-4
copper oxide	1 - <10	1317-38-0
copper	0.1 - <1	7440-50-8

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8. SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	 Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye damage.
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
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.

Section 4. First aid measures

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
Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed.
	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.
	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 ₂ , 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 very 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 nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides oxides of lead
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, protect	iv	e 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. Do not breathe 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. Collect spillage.

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 breathe vapor or mist. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. 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
	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

Section 7. Handling and storage

reuse container.

Conditions for safe storage, including any incompatibilities
 Storage temperature: 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
dicopper oxide	GBZ 2.1 (China, 4/2007).
	PC-TWA: 0.2 mg/m ³ , (as Cu) 8 hours. Form:
	fume
zinc oxide	GBZ 2.1 (China, 4/2007).
	PC-STEL: 5 mg/m ³ 15 minutes.
	PC-TWA: 3 mg/m ³ 8 hours.
rosin	ACGIH TLV (United States, 3/2017). Skin
	sensitizer. Inhalation sensitizer.
xylene isomers mixture	GBZ 2.1 (China, 4/2007).
	PC-STEL: 100 mg/m ³ 15 minutes.
	PC-TWA: 50 mg/m ³ 8 hours.
5-methylhexan-2-one	ACGIH TLV (United States, 3/2017).
	TWA: 93 mg/m ³ 8 hours.
	TWA: 20 ppm 8 hours.
	STEL: 50 ppm 15 minutes.
	STEL: 234 mg/m ³ 15 minutes.
Talc , not containing asbestiform fibres	GBZ 2.1 (China, 4/2007).
	PC-TWA: 1 mg/m ³ 8 hours. Form:
	respirable dust
	PC-TWA: 3 mg/m ³ 8 hours. Form: total dust
ethylbenzene	GBZ 2.1 (China, 4/2007).
	PC-STEL: 150 mg/m ³ 15 minutes.
	PC-TWA: 100 mg/m ³ 8 hours.
carbon black, respirable powder	GBZ 2.1 (China, 4/2007).
	PC-TWA: 4 mg/m ³ 8 hours. Form: total dust
copper oxide	GBZ 2.1 (China, 4/2007).
	PC-TWA: 0.2 mg/m ³ , (as Cu) 8 hours. Form:
	fume
copper	GBZ 2.1 (China, 4/2007).
	PC-TWA: 1 mg/m ³ , (as Cu) 8 hours. Form:
	dust

Section 8. Exposure controls/personal protection

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.
Individual protection measure	<u>es</u>	
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 <u>Skin protection</u>	:	Chemical splash goggles and face shield.
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	1	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	: Brown.
Odor	: Aromatic.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 30°C (86°F)
Material supports combustion.	: Yes.
Relative density	: 1.92
Solubility	: Insoluble in the following materials: cold water.
Viscosity	: Kinematic (40°C): >0.21 cm ² /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.
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 nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

Section 11. Toxicological information

and mists LD50 Dermal

l	Information on toxicological effects					
	Acute toxicity					
	Product/ingredient name	Result				
	dícopper oxide	LC50 Inhalation Dusts				
		and mists				
		LD50 Oral				
	rosin	LD50 Oral				
	xylene isomers mixture	LD50 Dermal				
		LD50 Oral				
	5-methylhexan-2-one	LD50 Dermal				
		LD50 Oral				
	4,5-dichloro-2-octyl-2H-	LC50 Inhalation Dusts				

4,5-dichloro-2-octyl-2H-
isothiazol-3-one

s	Rat	3.34 mg/l
	Rat Rat Rabbit	1340 mg/kg 7600 mg/kg >1.7 g/kg

>1.7 g/kg

4.3 g/kg 8.14 g/kg 3200 mg/kg

0.22 mg/l

3.9 g/kg

Dose

Species

Rat

Rat

Rat

Rabbit

Rabbit

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4 hours

Exposure

4 hours

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Section 11. Toxicological information

	LD50 Oral	Rat	2.2 g/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	-
carbon black, respirable powder	LD50 Dermal	Rabbit	>3 g/kg	-
	LD50 Oral	Rat	>15400 mg/kg	-
copper oxide	LD50 Oral	Rat	>2000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
viene isomers mixture	Skin - Moderate irritant	Rabbit		24 hours 500 mg	-

Sensitization

Not available.

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 fibres	Category 3	Not applicable.	Respiratory tract irritation
4,5-dichloro-2-octyl-2H-isothiazol-3-one	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Name		Result
ethylbe	enzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
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.

Section 11. Toxicological information

Ingestion

: May be harmful if swallowed.

Symptoms related to the	nhvsical c	hemical and tox	cicological characteristics
oymptoms related to the	physical, c	nenneur una tex	<u>allouiogical characteristics</u>

Eye contact	dverse symptoms may include the following:	
	ain vatering	
	edness	
Inhalation	lo specific data.	
Skin contact	dverse symptoms may include the following: ain or irritation edness ryness racking listering may occur	
Ingestion	dverse symptoms may include the following: tomach pains	
Delayed and immediate effect	d also chronic effects from short and long term exposure	
<u>Short term exposure</u>		
Potential immediate effects	lot available.	
Potential delayed effects	lot available.	
<u>Long term exposure</u>		
Potential immediate effects	lot available.	
Potential delayed effects	lot available.	
Potential chronic health effe		
General	Prolonged or repeated contact can defat the skin and lead to irritation, cracking r dermatitis. Once sensitized, a severe allergic reaction may occur when ubsequently exposed to very low levels.	and/
Carcinogenicity	lo known significant effects or critical hazards.	
Mutagenicity	lo known significant effects or critical hazards.	
Teratogenicity	lo known significant effects or critical hazards.	
Developmental effects	lo known significant effects or critical hazards.	
Fertility effects	lo known significant effects or critical hazards.	

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Øral	2179.3 mg/kg
Dermal	2651.5 mg/kg
Inhalation (gases)	16959.6 ppm
Inhalation (vapors)	42.9 mg/l
Inhalation (dusts and mists)	1.922 mg/l

Other information

Section 11. Toxicological information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains rosin, 4,5-dichloro-2-octyl-2H-isothiazol-3-one, Cashew, nutshell liq.. May produce an allergic reaction.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
dícopper oxide	LC50 0.003 mg/l	Fish	96 hours
zinc oxide	Acute EC50 0.17 mg/l	Algae	72 hours
	Acute EC50 0.481 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Chronic NOEC 0.017 mg/l Fresh water	Algae	72 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh	Fish - Lepomis macrochirus -	96 hours
	water	Young of the year	
copper	Acute LC50 800 ppb	Fish	96 hours

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
version and the second	-	-	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Vene isomers mixture	3.16	7.4 to 18.5	low
5-methylhexan-2-one	1.88	-	low
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 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	Ш	Ш	Ш	Ш
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(dicopper oxide, zinc oxide)	Not applicable.

Additional information

IMDG

IATA

- **CN** : None identified.
- UN : None identified.
 - : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
 - : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user

ser : 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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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

<u>History</u>	
Date of issue/Date of revision	: 30 May 2018
Date of previous issue	: 8/2/2017
Version	: 16 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.