# **SAFETY DATA SHEET**



Date of issue/Date of revision28 February 2025Version 1.01

Section 1. Identification		
Product code	: 00446863	
Product name	: SIGMA SAILADVANCE RX BLACK	
Product type	: Liquid.	
Relevant identified uses o	f the substance or mixture and uses advised against	
Product use	: Antifouling products Professional applications, Used by spraying.	
Supplier's details	: PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737	
Emergency telephone number (with hours of operation)	: CHEMTREC +(65)-31581349 (CCN 17704)	

# Section 2. Hazards identification

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	ACUTE TOXICITY (oral) - Category 4
	ACUTE TOXICITY (inhalation) - Category 4
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
	SKIN SENSITIZATION - Category 1
	CARCINOGENICITY - Category 1B
	AQUATIC HAZARD (ACUTE) - Category 1
	AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements, including precautionary statements

Hazard pictograms	
Signal word	: Danger
Hazard statements	: Flammable liquid and vapor. Harmful if swallowed or if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause cancer. Very toxic to aquatic life with long lasting effects.

Product name SIGMA SAILADVANCE RX BLACK

### Section 2. Hazards identification

Precautionary statements	
Prevention	: Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling.
Response	: Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: Not applicable.
Disposal	: Not applicable.
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

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: Mixture
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#### **CAS number/other identifiers**

CAS number	: Not applicable.
EC number	: Mixture.

Ingredient name	%	CAS number
dicopper oxide	25 - <50	1317-39-1
rosin	10 - <20	8050-09-7
zinc oxide	10 - <20	1314-13-2
4-methylpentan-2-one	5 - <10	108-10-1
Solvent naphtha (petroleum), light aromatic	5 - <10	64742-95-6
zineb (ISO)	5 - <10	12122-67-7
Propane, 1-(ethenyloxy)-2-methyl-, polymer with chloroethene	3 - <5	25154-85-2
1,2,4-trimethylbenzene	3 - <5	95-63-6
xylene	1 - <3	1330-20-7
Talc , not containing asbestiform fibres	1 - <3	14807-96-6
copper oxide	0.3 - <1	1317-38-0
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid	0.3 - <1	911674-82-3
and 1,3-phenylenedimethanamine		
Oils, pine	0.3 - <1	8002-09-3
p-mentha-1,4(8)-diene	0.1 - <0.3	586-62-9
zinc sulphide	0.1 - <0.3	1314-98-3
cumene	0.1 - <0.3	98-82-8

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.

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### Section 4. First aid measures

#### Description of necessary first aid measures

Eye contact	<ul> <li>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.</li> </ul>
Inhalation	<ul> <li>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.</li> </ul>
Skin contact	<ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.</li> </ul>
Ingestion	<ul> <li>If swallowed, seek medical advice immediately and show this container or label.</li> <li>Keep person warm and at rest. Do NOT induce vomiting.</li> </ul>

Most important symptoms/	effects, acute and delayed
Potential acute health effe	<u>cts</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.
Over-exposure signs/sym	<u>otoms</u>
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
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.

#### See toxicological information (Section 11)

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### 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 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
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. 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

Product name SIGMA SAILADVANCE RX BLACK

# Section 6. Accidental release measures

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	L	
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

#### **Occupational exposure limits**

Ingredient name	Exposure limits
dicopper oxide	Workplace Safety and Health Act (Singapore, 6/2024) [Copper (fume)] PEL (long term) 8 hours: 0.2 mg/m <sup>3</sup> . Form:
rosin	Fume. ACGIH TLV (United States, 1/2024) [resin acids] Skin sensitizer, Inhalation sensitizer. TWA 8 hours: 0.001 mg/m <sup>3</sup> (as total Resin acids). Form: Inhalable fraction.
zinc oxide	Workplace Safety and Health Act (Singapore, 6/2024) PEL (long term) 8 hours: 5 mg/m <sup>3</sup> . Form: Fume. PEL (long term) 8 hours: 10 mg/m <sup>3</sup> . Form: Dust. PEL (short term) 15 minutes: 10 mg/m <sup>3</sup> . Form: Fume.
4-methylpentan-2-one	Workplace Safety and Health Act
	(Singapore, 6/2024) PEL (long term) 8 hours: 50 ppm. PEL (long term) 8 hours: 205 mg/m <sup>3</sup> . PEL (short term) 15 minutes: 307 mg/m <sup>3</sup> . PEL (short term) 15 minutes: 75 ppm.
1,2,4-trimethylbenzene	Workplace Safety and Health Act (Singapore, 6/2024) [Trimethyl benzene] PEL (long term) 8 hours: 25 ppm. PEL (long term) 8 hours: 123 mg/m <sup>3</sup> .
xylene	Workplace Safety and Health Act (Singapore, 6/2024) [Xylene] PEL (long term) 8 hours: 100 ppm. PEL (long term) 8 hours: 434 mg/m <sup>3</sup> . PEL (short term) 15 minutes: 651 mg/m <sup>3</sup> . PEL (short term) 15 minutes: 150 ppm.
Talc , not containing asbestiform fibres	Workplace Safety and Health Act (Singapore, 6/2024) PEL (long term) 8 hours: 2 mg/m <sup>3</sup> .
copper oxide	Workplace Safety and Health Act (Singapore, 6/2024) [Copper (fume)] PEL (long term) 8 hours: 0.2 mg/m <sup>3</sup> . Form: Fume.
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	ACGIH TLV (United States) TWA: 3 mg/m <sup>3</sup> (Respirable fraction). TWA: 10 mg/m <sup>3</sup> (Total dust).
cumene	Workplace Safety and Health Act (Singapore, 6/2024) PEL (long term) 8 hours: 50 ppm.

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### Section 8. Exposure controls/personal protection

		PEL (long term) 8 hours: 246 mg/m <sup>3</sup> .			
Recommended monitoring procedures	:	Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.			
Appropriate engineering controls	:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, 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 ensur 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/face protection	:	Chemical splash goggles and face shield.			
Skin protection					
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.			
Gloves	:	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

Physical state	: Liquid.	
Color	Black.	
Odor	: Characteristic.	
рН	Not applicable.	
Boiling point	: >37.78°C (>100°F)	
Flash point	: Closed cup: 32°C (89.6°F)	
Evaporation rate	: Not available.	
Flammability (solid, gas)	: liquid	
Vapor pressure	Not available.	
Vapor density	:	
Relative density	: 1.65	
Solubility(ies)	Media Result	
Solubility(les)	cold water Not soluble	
Auto-ignition temperature	Not available.	
Viscosity	<ul> <li>Dynamic (room temperature): Not available.</li> <li>Kinematic (room temperature): Not available.</li> <li>Kinematic (40°C (104°F)): &gt;21 mm²/s (&gt;21 cSt)</li> </ul>	

# Section 10. Stability and reactivity

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

# Section 11. Toxicological information

### Information on toxicological effects

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dicopper oxide	LC50 Inhalation Dusts and mists	Rat	3.34 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	500 mg/kg	-
rosin	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	7600 mg/kg	-
zinc oxide	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	2.08 g/kg	-
Solvent naphtha (petroleum),	LD50 Dermal	Rabbit	3.48 g/kg	-
light aromatic	I DEG Orol	Det	0400 m m///m	
-inch (ICO)	LD50 Oral	Rat	8400 mg/kg	-
zineb (ISO)	LD50 Oral	Rat	>2000 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m <sup>3</sup>	4 hours
wdene	LD50 Oral	Rat	5 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
copper oxide	LD50 Oral	Rat	>2000 mg/kg	-
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and	LC50 Inhalation Dusts and mists	Rat	>5.08 mg/l	4 hours
1,3-phenylenedimethanamine				
Oils, pine	LD50 Dermal	Rabbit	5 g/kg	-
	LD50 Oral	Rat	2.1 g/kg	-
p-mentha-1,4(8)-diene	LD50 Oral	Rat	4390 mg/kg	-
cumene	LC50 Inhalation Vapor	Rat	39000 mg/m <sup>3</sup>	4 hours
ounione	LD50 Dermal	Rabbit	12.3 g/kg	
	LD50 Oral	Rat	2260 mg/kg	-

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>x</b> ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Conclusion/Summary					
Skin :	There are no data available	e on the mixtur	e itself.		
Eyes :	: There are no data available on the mixture itself.				
Respiratory :	: There are no data available on the mixture itself.				
Sensitization					

# Section 11. Toxicological information

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Product/ingredient name	Route of exposure	Species	Result	
zíneb (ISO)	skin	Guinea pig	Sensitizing	
Conclusion/Summary				
Skin	: There are no da	ta available on the mixture its	elf.	
Respiratory	: There are no da	ta available on the mixture its	elf.	
Mutagenicity				
Conclusion/Summary	: There are no da	ata available on the mixture its	self.	
<b>Carcinogenicity</b>				
<b>Conclusion/Summary</b>	: There are no da	ata available on the mixture its	elf.	
Reproductive toxicity				
<b>Conclusion/Summary</b>	: There are no da	ata available on the mixture its	elf.	
Teratogenicity				
<b>Conclusion/Summary</b>	: There are no da	ata available on the mixture its	elf.	
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#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
-methylpentan-2-one	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light aromatic	Category 3	-	Narcotic effects
zineb (ISO)	Category 3	-	Respiratory tract irritation
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
<b>c</b> umene	Category 2	-	-

#### **Aspiration hazard**

Name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
Oils, pine	ASPIRATION HAZARD - Category 1
p-mentha-1,4(8)-diene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

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Product name SIGMA SAILADVANCE RX BLACK

Information on the likely	: Not available.
routes of exposure	
Potential acute health effec	
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.
Symptoms related to the pl	hysical, 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 effe	ects and also chronic effects from short and long term exposure
Short term exposure	
onon term exposure	
Potential immediate	: Not available.
	: Not available.
Potential immediate	
Potential immediate effects	
Potential immediate effects Potential delayed effects	
Potential immediate effects Potential delayed effects Long term exposure	: Not available.
Potential immediate effects Potential delayed effects <u>Long term exposure</u> Potential immediate	<ul><li>Not available.</li><li>Not available.</li></ul>
Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects	<ul> <li>Not available.</li> <li>Not available.</li> <li>Not available.</li> </ul>
Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects Potential delayed effects	<ul> <li>Not available.</li> <li>Not available.</li> <li>Not available.</li> </ul>
Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects Potential delayed effects Potential chronic health ef	<ul> <li>Not available.</li> <li>Not available.</li> <li>Not available.</li> <li>ffects <ul> <li>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</li> </ul> </li> </ul>
Potential immediate effects Potential delayed effects Long term exposure Potential immediate effects Potential delayed effects Potential chronic health ef General	<ul> <li>Not available.</li> <li>Not available.</li> <li>Not available.</li> <li>ffects <ul> <li>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.</li> </ul> </li> </ul>

### Numerical measures of toxicity

Acute toxicity estimates

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### Section 11. Toxicological information

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Route	ATE value
Øral	1540.97 mg/kg
Dermal	76923.55 mg/kg
Inhalation (vapors)	54.29 mg/l
Inhalation (dusts and mists)	3.41 mg/l

#### Other 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
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
4-methylpentan-2-one	Acute LC50 >179 mg/l	Fish	96 hours
Solvent naphtha (petroleum),	Acute LC50 8.2 mg/l	Fish	96 hours
light aromatic	_		
Reaction products of	Acute LC50 >100 mg/l	Fish	96 hours
12-hydroxyoctadecanoic			
acid and octadecanoic acid			
and			
1,3-phenylenedimethanamine			
Conclusion/Summary	: Not available.		

#### Persistence/degradability

Product/ingredient name	Test	Result		Dose	Inoculum
4-methylpentan-2-one	OECD 301F	83 % - Readily - 28	days	-	-
Conclusion/Summary	: Not available.				
Product/ingredient name	Aquatic half-life		Photolysis	5	Biodegradability
<pre></pre>	-		-		Readily Readily

**Bioaccumulative potential** 

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# Section 12. Ecological information

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Product/ingredient name	LogPow	BCF	Potential
<b>F</b> osin	1.9 to 7.7	-	High
4-methylpentan-2-one	1.9	-	Low
zineb (ISO)	1.3	-	Low
1,2,4-trimethylbenzene	3.63	120.23	Low
xylene	3.12	7.4 to 18.5	Low
p-mentha-1,4(8)-diene	4.47	-	High
cumene	3.55	35.48	Low

Mobility in soil	
Soil/Water partition coefficient	: Not available.

# 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

Singapore

English (US)

	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	Ш	
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

P	age: 13/15
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Product code 00446863

### Section 14. Transport information

Marine pollutant	Not applicable.	(dicopper oxide)	Not applicable.
substances			

#### **Additional information**

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

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

### Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

UN

IMDG

ΙΑΤΑ

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

### Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 28 February 2025
Date of previous issue	: 11/13/2023
Version	: 1.01
Prepared by	: EHS
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = 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) UN = United Nations
Indicates information the	at has changed from proviously issued version

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### Section 16. Other information

#### 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.