# SAFETY DATA SHEET



#### Date of issue 12/13/2024 (month/day/year)

Version 1.01

# Section 1. Chemical product and company identification

Α.	Product name	1	SIGMACOVER 456 BASE RED
	Product code	1	000001201564

Other means of identification 00476572

B. 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	: Product is not intended, labelled or packaged for consumer use.
C. Supplier's or Importer's information	: PPG SSC (680-090) 19, Yeocheon-ro 217beon-gil, Nam-gu, Ulsan, Korea Tel: +82-52-210-8222
Email Address	Korea.MSDS@PPG.COM
Emergency telephone number:	: +82-52-210-8331

# Section 2. Hazards identification

A. Hazard classification	<ul> <li>FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3 This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.</li> </ul>
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**B.** GHS label elements, including precautionary statements



Signal word

**Symbol** 

: Danger

Date of issue <sup>12/13/2024</sup> (month/day/year)

### Product name SIGMACOVER 456 BASE RED

	Hazard statements	-	<ul> <li>H226 - Flammable liquid and vapor.</li> <li>H315 - Causes skin irritation.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H319 - Causes serious eye irritation.</li> <li>H350 - May cause cancer.</li> <li>H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver)</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>
	Precautionary statements	;	
	Prevention	:	<ul> <li>202 - Do not handle until all safety precautions have been read and understood.</li> <li>P280 - Wear protective gloves, protective clothing and eye or face protection.</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P241 - Use explosion-proof electrical, ventilating or lighting equipment.</li> <li>P241 - Use explosion-proof electrical, ventilating or lighting equipment.</li> <li>P242 - Use non-sparking tools.</li> <li>P243 - Take action to prevent static discharges.</li> <li>P240 - Ground and bond container and receiving equipment.</li> <li>P273 - Avoid release to the environment.</li> <li>P260 - Do not breathe vapor.</li> <li>P270 - Do not eat, drink or smoke when using this product.</li> <li>P264 - Wash thoroughly after handling.</li> </ul>
	Response	:	<ul> <li>7370 + P378 - In case of fire: Never use water to extinguish.</li> <li>P308 + P313 - IF exposed or concerned: Get medical advice or attention.</li> <li>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</li> <li>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.</li> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical advice or attention.</li> <li>P321 - Specific treatment (see the label).</li> </ul>
	Storage	:	P403 + P235 - Store in a well-ventilated place. Keep cool.
	Disposal	:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
2.	Other hazards which do not result in classification	:	Prolonged or repeated contact may dry skin and cause irritation.

# Section 3. Composition/information on ingredients

#### **CAS number/other identifiers**

**CAS number** 

С

: Not applicable.

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# Section 3. Composition/information on ingredients

Chemical name	Common name	Identifiers	%
Epoxy Resin	EPOXY RESIN	CAS: SUB110652	20 - <30
Xylene	XYLENES	CAS: 1330-20-7 EC: 215-535-7	10 -<20
Epoxy resin (MW  ≤ 700)	EPOXY RESIN ( AVERAGE MOLECULAR WT < 700)	CAS: 25068-38-6	5 - <10
		EC: 500-033-5	
Talc , not containing asbestiform fibres	Talc, non-asbestos form	CAS: 14807-96-6	5 - <10
		EC: 238-877-9	4 .5
ethylbenzene	ETHYLBENZENE	CAS: 100-41-4 EC: 202-849-4	1 - <5
2-methylpropan-1-ol	ISOBUTYL ALCOHOL	CAS: 78-83-1	1 - <5
51 1		EC: 201-148-0	_
titanium dioxide	TITANIUM DIOXIDE	CAS: 13463-67-7	0.1 - <1
		EC: 236-675-5	
crystalline silica, respirable powder (<10 microns)	QUARTZ (<10 microns)	CAS: 14808-60-7	0.1 - <1
		EC: 238-878-4	

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.

# Section 4. First aid measures

Α.	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.
В.	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.
C.	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.
D.	Ingestion	:	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
Е.	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	1	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

Α.	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.
В.	Specific hazards arising from the chemical	:	Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
C.	Special equipment for fire-fighting	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Fire-fighting procedures	:	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.

# Section 6. Accidental release measures

contractor.

A. Personal precautions, protective equipment and emergency procedures	: 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.
B. 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.
C. 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

## Section 6. Accidental release measures

- Large spill
- : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

A. Precautions for safe Put on appropriate personal protective equipment (see Section 8). Persons with a handling 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.

B. 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

#### A. Occupational exposure limits

Ingredient name	Exposure limits
Xylene	ISHA Article 42 (Republic of Korea,
	1/2020) [Xylene]
	STEL 15 minutes: 150 ppm.
	TWA 8 hours: 100 ppm.
Talc , not containing asbestiform fibres	ISHA Article 42 (Republic of Korea,
	1/2020)
	TWA 8 hours: 2 mg/m³ (as asbestos).
	Form: fibers.
ethylbenzene	ISHA Article 42 (Republic of Korea,
, ,	1/2020)
	STEL 15 minutes: 125 ppm.
	TWA 8 hours: 100 ppm.
2-methylpropan-1-ol	ISHA Article 42 (Republic of Korea,
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## Section 8. Exposure controls/personal protection

	1/2020)
	TWA 8 hours: 50 ppm.
titanium dioxide	ISHA Article 42 (Republic of Korea,
	1/2020)
	TWA 8 hours: 10 mg/m <sup>3</sup> .
crystalline silica, respirable powder (<10 microns)	ISHA Article 42 (Republic of Korea,
	1/2020)
	TWA 8 hours: 0.05 mg/m <sup>3</sup> . Form:
	Respirable fraction.
	appropriate monitoring standards. Reference to for methods for the determination of hazardous

B. 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 Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection logicilation. In complexity of environmental protection logicilation.

substances will also be required.

**exposure controls** 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.

#### C. Personal protective equipment

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.
Eye protection	: Chemical splash goggles.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
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.
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.

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# Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Α.	Appearance			
	Physical state	1	Liquid.	
	Color	1	Red.	
В.	Odor	1	Aromatic. [Strong]	
С.	Odor threshold	1	Not available.	
D.	рН	: Not applicable.		
Ε.	Melting/freezing point	: Not available.		
F.	Boiling point/boiling range	1	>37.78°C (>100°F)	
G.	Flash point	:	Closed cup: 27°C (80	).6°F)
н.	Evaporation rate	:	Not available.	
Т.	Flammability (solid, gas)	:	Not available.	
J.	Lower and upper explosive (flammable) limits	:	Not available.	
Κ.	Vapor pressure	1		Va

К.	Vapor pressure	: [		Vapor	Press	ure at 20°C	Va	por press	ure at 50°C
		ľ	Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2	2-methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2			
L.	Solubility(ies)	· · •	Vedia	Res	sult				
		c	cold water	Not	solubl	e			
	Solubility in water	: N	lot available.						
м.	Vapor density	: N	lot available.						
N.	Relative density	: 1	.4						
N. O.	Partition coefficient: n- octanol/water	: N	lot applicable.						
Ρ.	Auto-ignition temperature	:							
		I	ngredient name		°C	°F		Method	
		(	I-[[4-(aminocarbonyl)pher 2-ethoxyphenyl) 3-hydroxynaphthalene-2-		>140	>284			
Q.	Decomposition temperature	: N	lot available.			·	<u> </u>		
R	Viscosity	: Þ	ynamic (room tempe	erature): N	lot ava	ilable.			

Kinematic (room temperature): >400 mm<sup>2</sup>/s (>400 cSt) Kinematic (40°C (104°F)): >21 mm<sup>2</sup>/s (>21 cSt)

Viscosity R.

- Flow time (ISO 2431)
- **Molecular weight** S.
- : Not available. : Not applicable.

# Section 10. Stability and reactivity

Α.	Chemical stability	1	The product is stable.
	Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
В.	Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.
<b>C</b> .	Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
D.	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

A. Information on the like routes of exposure	ely : Not available.
Potential acute health ef	fects
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Eye contact	: Causes serious eye irritation.
<u>Over-exposure signs/syr</u>	nptoms
Inhalation	: No specific data.

Ingestion Skin contact	<ul> <li>No specific data.</li> <li>Adverse symptoms may include the following: irritation redness dryness cracking</li> </ul>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

### B. Health hazards

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>X</b> ylene	LD50 Dermal	Rabbit	1.7 g/kg	-
•	LD50 Oral	Rat	4.3 g/kg	-
Epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>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	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
2.1 .	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
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Product code 00000120150 Product name SIGMACOVE		, 12/13/2024 <mark>(m</mark>	onth/day/year)	Version 1.01			
Section 11. Toxicological information							
titanium dioxide	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat Rabbit Rat	>6.82 mg/l >5000 mg/kg >5000 mg/kg	4 hours - -			

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

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	<b>Observation</b>
Xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Epoxy resin (MW ≤ 700)	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	-	-

: There are no data available on the mixture itself.
: There are no data available on the mixture itself.
: There are no data available on the mixture itself.

#### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result	
Epoxy resin (MW $\leq$ 700)	skin	Mouse	Sensitizing	
Conclusion/Summary				
Skin :	There are no dat	a available on the mixture itse	lf.	
Respiratory :	There are no dat	a available on the mixture itse	lf.	
Mutagenicity				
	There are no da	ta available on the mixture itse	elf.	
Carcinogenicity				
Conclusion/Summary :	There are no da	ata available on the mixture itse	elf.	
Reproductive toxicity				
Conclusion/Summary :	There are no da	ata available on the mixture its	elf.	
Teratogenicity				
	There are no da	ata available on the mixture its	elf.	
Specific target organ toxicit	<u>y (single expos</u> ı	ure)		
Name		Classification	Route of exposure	Target organs
V. da a a		Catagory 2		Nonestie offeste

	olussilloution	exposure	raiger organo
Xylene Talc , not containing asbestiform fibres	Category 3 Category 3		Narcotic effects Respiratory tract
Taic, not containing assestion in indes	Category 5		irritation
2-methylpropan-1-ol	Category 3		Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

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Section 11 Toxicological information

Name	Classification	Route of exposure	Target organs			
Xylene	Category 1	-	central nervous system (CNS), kidneys, liver			

#### **Aspiration hazard**

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 2

#### 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	: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

### **Additional 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.

Chemical name	Identifiers	GHS Classification
Epoxy Resin	CAS: SUB110652	SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SKIN SENSITIZATION - Category 1B
Xylene	CAS: 1330-20-7	FLAMMABLE LIQUIDS - Category 3
	EC: 215-535-7	ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE
		EXPOSURE) (Narcotic effects) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY
		(REPEATED EXPOSURE) - Category 1
Epoxy resin (MW  ≤ 700)	CAS: 25068-38-6	SKIN IRRITATION - Category 2
	EC: 500-033-5	EYE IRRITATION - Category 2A
		SKIN SENSITIZATION - Category 1B
		AQUATIC HAZARD (LONG-TERM) - Category 2
Talc , not containing asbestiform fibres	CAS: 14807-96-6	SPECIFIC TARGET ORGAN TOXICITY (SINGLE
-		EXPOSURE) (Respiratory tract irritation) -
		Category 3
	EC: 238-877-9	
ethylbenzene	CAS: 100-41-4	FLAMMABLE LIQUIDS - Category 2
	EC: 202-849-4	ACUTE TOXICITY (inhalation) - Category 4
		CARCINOGENICITY - Category 2
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# Section 11. Toxicological information

		ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
2-methylpropan-1-ol	CAS: 78-83-1	FLAMMABLE LIQUIDS - Category 3
	EC: 201-148-0	SKIN IRRITATION - Category 2
		SERIOUS EYE DAMAGE - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE
		EXPOSURE) (Respiratory tract irritation) -
		Category 3
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE
		EXPOSURE) (Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 2
titanium dioxide	CAS: 13463-67-7	CARCINOGENICITY - Category 2
	EC: 236-675-5	
crystalline silica, respirable powder (<10 microns)	CAS: 14808-60-7	CARCINOGENICITY - Category 1A
	EC: 238-878-4	

# Section 12. Ecological information

### A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
Epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours

### B. Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Epoxy resin (MW ≤ 700) ethylbenzene	OECD 301F -	5 % - 28 da 79 % - Rea	ays adily - 10 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
Epoxy resin (MW  ≤ 700) ethylbenzene			- -		Readily Not rea Readily	dily

#### C. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
<b>X</b> ylene	3.12	7.4 to 18.5	Low
Epoxy resin (MW $\leq$ 700)	3	31	Low
ethylbenzene	3.6	79.43	Low
2-methylpropan-1-ol	1	-	Low

### D. Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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## Section 12. Ecological information

E. Other adverse effects

: No known significant effects or critical hazards.

# Section 13. Disposal considerations

- A. 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.
- B. Disposal precautions
   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

	UN	IMDG	ΙΑΤΑ
A. UN number	UN1263	UN1263	UN1263
B. UN proper shipping name	PAINT	PAINT	PAINT
C. Transport hazard class(es)	3	3	3
D. Packing group	III		III
Environmental hazards	No.	No.	No.
E. Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

#### Additional information

UN	: This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.1.
IMDG	<ul> <li>This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.</li> </ul>
ΙΑΤΑ	: None identified.

# F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

**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 14. Transport information

Transport in bulk according : Not applicable.

to IMO instruments

# Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture)	: None of the components are listed.
ISHA article 118 (Harmful substances requiring permission)	: None of the components are listed.
Article 2 of Youth Protection Act on Substances Hazardous to Youth	: It is not allowed to sell to persons under the age of 19.

### **Exposure Limits of Chemical Substances and Physical Factors**

The following components have an OEL:

	5 1		
	ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)	:	None of the components are listed.
	ISHA Enforcement Regs Annex 11-5 (Harmful factors subject to Work Environment Measurement)	:	The following components are listed: xylene, talc / soapstone, ethyl benzene, isobutyl alcohol
	ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check- up)	:	The following components are listed: Xylene, Ethyl benzene, Isobutyl alcohol
	Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)	:	The following components are listed: xylene, ethyl benzene, isobutyl alcohol
в.	Regulation according to (	Ch	emicals Control Act
	Article 11 (TRI)	:	The following components are listed: Xylene including o-,m-,p- isomer, Barium and its compounds, 4,4'-(1-Methylethylidene) bisphenol polymer with (chloromethyl) oxirane, Ethylbenzene
	Article 18 Prohibited (K- Reach Article 27)	:	None of the components are listed.
	Article 19 Subject to authorization (K-Reach Article 25)	:	None of the components are listed.
	Article 20 Restricted (K- Reach Article 27)	:	None of the components are listed.

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## Section 15. Regulatory information

	Article 20 Toxic Chemicals (K-Reach Article 20)	:	Not applicable
	Korea inventory	1	All components are listed or exempted.
	Article 39 (Accident Precaution Chemicals)	:	None of the components are listed.
C.	Dangerous Materials Safety Management Act	:	Class: Class 4 - Flammable Liquid Item: 4. Class 2 petroleums - Water-insoluble liquid Threshold: 1000 L Danger category: III Signal word: Contact with sources of ignition prohibited
D.	Wastes regulation	1	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Ε.	Regulation according to	oth	er foreign laws
	Safety, health and environmental regulations specific for the product	-	No known specific national and/or regional regulations applicable to this product (including its ingredients).

# Section 16. Other information

Α.	References	: Korean Ministry of Environment; Chemical Control Act Korean Ministry of Labor; Industrial Safety and Health Act NIER Notice Registry of Toxic Effects of Chemical Substances (RTECS) U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System.
В.	First issue date	: 5/31/2024
C.	Date of issue/Date of revision	: 12/13/2024
D.	Version	: 1.01
	Prepared by	: EHS
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E. Other

✓ Indicates information that has changed from previously issued version.

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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.