# **SAFETY DATA SHEET**



Date of issue/Date of revision 21 February 2020 Version 4.03

Section 1. Identification		
Product code	: 00247557	
Product name	: SIGMACOVER 456 BASE RAL 5012	
Product type	: Liquid.	
Relevant identified uses of Identified uses Coating. Paints. Painting-re	the substance or mixture and uses advised against lated materials.	
Supplier's details	: ₱₱G 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 (inhalation) - Category 4
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**GHS label elements, including precautionary statements** 

Hazard pictograms	
Signal word	: Danger
Hazard statements	<ul> <li>Flammable liquid and vapor. Harmful if inhaled. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.</li> </ul>

#### **Precautionary statements**

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### Section 2. Hazards identification

Prevention	: Wear protective gloves. Wear eye or face protection. 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. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: Get medical attention if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
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.
Other hazards which do not	: Prolonged or repeated contact may dry skin and cause irritation.

#### result in classification

### Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

#### CAS number/other identifiers

CAS number	: Not applicable	<b>)</b> .
EC number	: Mixture.	

Ingredient name	%	CAS number
Epoxy Resin	20 - <25	SUB110652
crystalline silica, respirable powder (<10 microns)	20 - <25	14808-60-7
xylene	10 - <20	1330-20-7
Epoxy resin (MW ≤ 700)	5 - <10	25068-38-6
Talc , not containing asbestiform fibres	5 - <10	14807-96-6
ethylbenzene	1 - <3	100-41-4
2-methylpropan-1-ol	1 - <3	78-83-1
1-methoxy-2-propanol	1 - <3	107-98-2

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

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

### Section 4. First aid measures

Description of necessary first aid measures			
Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.		
Inhalation	<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/e	cts, acute and delayed	
Potential acute health effe		
Eye contact	: Causes serious eye irritation.	
Inhalation	: Harmful if inhaled. May cause respiratory irritation.	
Skin contact	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.	
Ingestion	No known significant effects or critical hazards.	
Over-exposure signs/symp	<u>ns</u>	
Eye contact	Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing	
Skin contact	Adverse symptoms may include the following: irritation redness dryness cracking	
Ingestion	No specific data.	
Indication of immediate med	Il attention and special treatment needed, if necessary	
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.	
Specific treatments	No specific treatment.	
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	

See toxicological information (Section 11)

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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.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon 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	<ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</li> </ul>

### Section 6. Accidental release measures

contractor.

Personal precautions, protect	tive	equipment and emergency procedures
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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).
Methods and materials for co	nta	<u>inment and cleaning up</u>
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

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### 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 non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

#### Precautions for safe handling

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
: 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.
: 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
crystalline silica, respirable p	owder (<10 microns)	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 0.1 mg/m <sup>3</sup> 8 hours. Form: Respirable Dust
xylene		Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 651 mg/m <sup>3</sup> 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m <sup>3</sup> 8 hours.
Talc , not containing asbestife	orm fibres	PEL (long term): 100 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 2 mg/m <sup>3</sup> 8 hours.
ethylbenzene		Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 543 mg/m <sup>3</sup> 15 minutes. PEL (short term): 125 ppm 15 minutes. PEL (long term): 434 mg/m <sup>3</sup> 8 hours.
2-methylpropan-1-ol		PEL (long term): 100 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 152 mg/m <sup>3</sup> 8 hours.
1-methoxy-2-propanol		<ul> <li>PEL (long term): 50 ppm 8 hours.</li> <li>Workplace Safety and Health Act (Singapore, 2/2006).</li> <li>PEL (short term): 553 mg/m<sup>3</sup> 15 minutes.</li> <li>PEL (short term): 150 ppm 15 minutes.</li> <li>PEL (long term): 369 mg/m<sup>3</sup> 8 hours.</li> <li>PEL (long term): 100 ppm 8 hours.</li> </ul>
Recommended monitoring procedures	atmosphere or biological mon of the ventilation or other con protective equipment. Reference standards. Reference to nati	lients with exposure limits, personal, workplace nitoring may be required to determine the effectiveness trol measures and/or the necessity to use respiratory ence should be made to appropriate monitoring onal guidance documents for methods for the substances will also be required.
ontrols	or other engineering controls below any recommended or	ation. Use process enclosures, local exhaust ventilation to keep worker exposure to airborne contaminants statutory limits. The engineering controls also need to entrations below any lower explosive limits. Use juipment.
invironmental exposure ontrols	they comply with the requiren cases, fume scrubbers, filters	work process equipment should be checked to ensure nents of environmental protection legislation. In some s or engineering modifications to the process equipment missions to acceptable levels.

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Product name SIGMACOVER 456 BASE RAL 5012

### Section 8. Exposure controls/personal protection

#### **Individual protection measures**

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

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Vapor pressure	: Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.98 kPa (7.35 mm Hg) (at 20°C)
Flammability (solid, gas)	: liquid
Evaporation rate	: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.77compared with butyl acetate
Flash point	: Closed cup: 27°C (80.6°F)
Boiling point	: >37.78°C (>100°F)
рН	insoluble in water.
Odor	: Aromatic.
Color	: Blue.
Physical state	: Liquid.
<u>Appearance</u>	

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### Section 9. Physical and chemical properties

Vapor density	: Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.61 (Air = 1)
Relative density	: 1.48
Solubility	: Insoluble in the following materials: cold water.
Auto-ignition temperature	: Lowest known value: 270°C (518°F) (1-methoxy-2-propanol).
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingred	ients.
Chemical stability	: The product is stable.	
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occ	cur.
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 reaction oxidizing agents, strong alkalis, strong acids.	IS:
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides sulfur oxides halogenated compounds metal oxide	e/oxides

### Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	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
2	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
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-

Conclusion/Summary Irritation/Corrosion

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Section 11. Toxicological information

xylene Skin - Moderate irritant Rabbit -	Exposure 24 hours 500 mg - -	Observation - - -
Epoxy resin (MW ≤ 700)       Skin - Mild irritant Eyes - Mild irritant       Rabbit Rabbit       -         Conclusion/Summary Skin       : There are no data available on the mixture itself.         Eyes       : There are no data available on the mixture itself.         Eyes       : There are no data available on the mixture itself.         Sensitization       : There are no data available on the mixture itself.         Product/ingredient name       Route of exposure       Species       Result         Epoxy resin (MW ≤ 700)       skin       Mouse       Sensit         Conclusion/Summary Skin       : There are no data available on the mixture itself.       Sensit         Conclusion/Summary Skin       : There are no data available on the mixture itself.	mg - -	-
Epoxy resin (MW ≤ 700)Skin - Mild irritant Eyes - Mild irritantRabbit Rabbit-Conclusion/Summary Skin:There are no data available on the mixture itself.Eyes:There are no data available on the mixture itself.Eyes:There are no data available on the mixture itself.Respiratory:There are no data available on the mixture itself.SensitizationProduct/ingredient nameRoute of exposureSpeciesEpoxy resin (MW ≤ 700)skinMouseSensitConclusion/Summary Skin:There are no data available on the mixture itself.Respiratory:There are no data available on the mixture itself.	-	-
Eyes - Mild irritant       Rabbit       -         Conclusion/Summary       Skin       : There are no data available on the mixture itself.         Eyes       : There are no data available on the mixture itself.         Respiratory       : There are no data available on the mixture itself.         Sensitization       Product/ingredient name       Route of exposure         Product/ingredient name       Route of exposure       Species         Epoxy resin (MW ≤ 700)       skin       Mouse       Sensit         Conclusion/Summary       skin       Mouse       Sensit         Skin       : There are no data available on the mixture itself.       Result         Conclusion/Summary       skin       Mouse       Sensit         Conclusion/Summary       : There are no data available on the mixture itself.       There are no data available on the mixture itself.	- - It	-
Conclusion/Summary         Skin       : There are no data available on the mixture itself.         Eyes       : There are no data available on the mixture itself.         Respiratory       : There are no data available on the mixture itself.         Sensitization       Product/ingredient name       Route of exposure         Epoxy resin (MW ≤ 700)       skin       Mouse       Sensit         Conclusion/Summary       skin       itself.       Sensit         Conclusion/Summary       : There are no data available on the mixture itself.       Result         Respiratory       : There are no data available on the mixture itself.	- It	-
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Sensitization         Product/ingredient name       Route of exposure       Species       Result         Epoxy resin (MW ≤ 700)       skin       Mouse       Sensit         Conclusion/Summary       Skin       : There are no data available on the mixture itself.         Respiratory       : There are no data available on the mixture itself.	lt	
Product/ingredient name       Route of exposure       Species       Result         Epoxy resin (MW ≤ 700)       skin       Mouse       Sensit         Conclusion/Summary       Skin       Intere are no data available on the mixture itself.         Respiratory       :       There are no data available on the mixture itself.	lt	
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Conclusion/Summary Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.		
Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.	tizing	
<b>Respiratory</b> : There are no data available on the mixture itself.		
Mutagenicity		
<b>Conclusion/Summary</b> : There are no data available on the mixture itself.		
Carcinogenicity		
<b>Conclusion/Summary</b> : There are no data available on the mixture itself.		
Reproductive toxicity		
<b>Conclusion/Summary</b> : There are no data available on the mixture itself.		
Teratogenicity		
<b>Conclusion/Summary</b> : There are no data available on the mixture itself.		
Specific target organ toxicity (single exposure)		

Name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
Talc , not containing asbestiform fibres	Category 3	Not applicable.	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder (<10 microns)	Category 1	Inhalation	Not determined hearing organs
ethylbenzene	Category 2	Not determined	

**Aspiration hazard** 

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### Section 11. Toxicological information

Name		Result		
xylene ethylbenzene		ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1		
nformation on the likely outes of exposure	: Not available.			
Potential acute health effec	<u>ts</u>			
Eye contact	: Causes serious eye irritation.			
Inhalation	: Harmful if inhaled. May cause r	espiratory irritation.		
Skin contact	: Causes skin irritation. Defatting	to the skin. May cause an allergic skin reaction.		
Ingestion	: No known significant effects or o	critical hazards.		
Symptoms related to the ph	ysical, chemical and toxicological	<u>characteristics</u>		
Eye contact	: Adverse symptoms may include pain or irritation watering redness	the following:		
Inhalation	: Adverse symptoms may include respiratory tract irritation coughing	the following:		
Skin contact	: Adverse symptoms may include irritation redness dryness cracking	redness dryness		
Ingestion	: No specific data.			
Delayed and immediate effe	ects and also chronic effects from s	short and long term exposure		
<u>Short term exposure</u>				
Potential immediate effects	: Not available.			
Potential delayed effects Long term exposure	: Not available.			
Potential immediate effects	: Not available.	Not available.		
Potential delayed effects	: Not available.			
Potential chronic health eff	fects			
General	: Causes damage to organs throu repeated contact can defat the s	ugh prolonged or repeated exposure. Prolonged or skin and lead to irritation, cracking and/or dermatitis. ic reaction may occur when subsequently exposed to		
Conclusionalists	No known significant effects or critical hazards.			
Carcinogenicity	: No known significant effects or critical hazards.			

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### Section 11. Toxicological information

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

#### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Inhalation (vapors)	3518.54 mg/kg 17.23 mg/l 2.22 mg/l

#### Other 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.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitizer and an irritant. It contains low-molecular weight epoxy constituents which are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitization to other epoxies. Skin contact with the mixture and exposure to spray, mist and vapors should be avoided.

Contains Epoxy resin (MW  $\leq$  700). May produce an allergic reaction.

### Section 12. Ecological information

#### **Toxicity**

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 LC50 150 to 200 mg/l Fresh water	Fish	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l Acute LC50 >4500 mg/l Fresh water	Daphnia Fish	48 hours 96 hours

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### Section 12. Ecological information

**Conclusion/Summary** 

: There are no data available on the mixture itself.

#### Persistence/degradability

Product/ingredient name	Test	Result		Dose	Inoculum
Epoxy resin (MW $\leq$ 700)	OECD 301F	5 % - 28 days		-	-
Conclusion/Summary	: There are n	o data available on th	ne mixture itself	f.	
Product/ingredient name	Aquatic half-lit	fe	Photolysis	3	Biodegradability
xylene Epoxy resin (MW  ≤ 700) ethylbenzene			-		Readily Not readily Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene	3.16	7.4 to 18.5	low
Epoxy resin (MW ≤ 700)	3	31	low
ethylbenzene	3.15	79.43	low
2-methylpropan-1-ol	0.76	-	low

#### Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

1 :

: 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

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

#### **Additional information**

UN	:None identified.
IMDG	:None identified.
IATA	:None identified.

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

### Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

#### **International regulations**

**Montreal Protocol** 

Not listed.

### Section 16. Other information

#### **History**

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# Section 16. Other information

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 = Intermediate Bulk Container
	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 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.