## SAFETY DATA SHEET

PPG

Version1.02

Date of issue/Date of revision 13 September 2022

## Section 1. Identification

<ul> <li>: 00445205</li> <li>: SIGMACOVER 380 BASE BLACK TOP/C</li> <li>: Not applicable.</li> <li>: Mixture.</li> <li>: Liquid.</li> </ul> of the substance or mixture and uses advised against <ul> <li>: Coating.</li> <li>Professional applications, Used by spraying.</li> </ul>
<ul> <li>Not applicable.</li> <li>Mixture.</li> <li>Liquid.</li> </ul> of the substance or mixture and uses advised against <ul> <li>Coating.</li> </ul>
<ul> <li>Mixture.</li> <li>Liquid.</li> </ul> of the substance or mixture and uses advised against <ul> <li>Coating.</li> </ul>
: Liquid. of the substance or mixture and uses advised against : Coating.
of the substance or mixture and uses advised against Coating.
Coating.
oodang.
: Product is not intended, labelled or packaged for consumer use.
: PPG Yung Chi Coatings Co. Ltd Lot 219, Amata Street, Long Binh IZ Bien Hoa City, Dong Nai Province Vietnam Tel : +84 61 3936121/22
: CHEMTREC +(84)-444581938 (CCN 17704)

## Section 2. Hazards identification

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	ACUTE TOXICITY (oral) - Category 5
	ACUTE TOXICITY (dermal) - Category 5
	ACUTE TOXICITY (inhalation) - Category 4
	SKIN IRRITATION - Category 2
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	TOXIC TO REPRODUCTION - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	AQUATIC TOXICITY (ACUTE) - Category 1
	AQUATIC TOXICITY (CHRONIC) - Category 1
	Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 28.9%
	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 62%
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 80.2%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 65.4%

**GHS label elements** 

## Section 2. Hazards identification

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	Flammable liquid and vapor. May be harmful if swallowed or in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	:	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Routes of entry	:	Not available.
Other hazards which do not result in classification	:	Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

Substance/mixture	1	Mixture

<b>CAS number/other identifiers</b>		
CAS number	:	Not applicable.
EC number	1	Mixture.

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Product name SIGMACOVER 380 BASE BLACK TOP/C

## Section 3. Composition/information on ingredients

Ingredient name	CAS number	Chemical formula	%
Palc , not containing asbestiform fibres	14807-96-6	3Mg-O.4Si-O2. H2-O	≥25 - ≤50
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	25068-38-6	(C15-H16-O2. C3-H5-Cl-O)x	≤14
xylene	1330-20-7	C8-H10	≤9.2
nonylphenol	25154-52-3	C15-H24-O	<5
Epoxy Resin (700 <mw<=1100)< td=""><td>25036-25-3</td><td>(C21H24O4. C15H16O2)x</td><td>≤4.4</td></mw<=1100)<>	25036-25-3	(C21H24O4. C15H16O2)x	≤4.4
Phenol, methylstyrenated	68512-30-1	C18H20	≤4.1
2-methylpropan-1-ol	78-83-1	C4-H10-O	≤3.8
ethylbenzene	100-41-4	C8-H10	≤1.7

There are no 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.

SUB codes represent substances without registered CAS Numbers.

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

## Section 4. First aid measures

#### Description of necessary first aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	<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	fects, acute and delayed
Potential acute health effec	<u>'S</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: May be harmful if swallowed.
Over-exposure signs/symp	oms
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations

## Section 4. First aid measures

Skin contact Ingestion	<ul> <li>Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations</li> <li>Adverse symptoms may include the following:</li> </ul>
	stomach pains reduced fetal weight increase in fetal deaths skeletal malformations
Indication of immediate mee	dical attention and special treatment needed, if necessary
Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is 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 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.
<b></b>	

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

## Section 7. Handling and storage

#### Precautions for safe handling

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. Avoid exposure during pregnancy. 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.
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## Section 7. Handling and storage

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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		
ralc , not containing asbestiform fibres	Ministry of Health (Viet Nam, 6/2019). TWA: 3 mg/m <sup>3</sup> 8 hours. Form: inhalable dust TWA: 1 mg/m <sup>3</sup> 8 hours. Form: respirable dust TWA: 2 mg/m <sup>3</sup> 8 hours. Form: total dust concentration		
xylene	Ministry of Health (Viet Nam, 6/2019). [xylene] STEL: 300 mg/m <sup>3</sup> 15 minutes. TWA: 100 mg/m <sup>3</sup> 8 hours.		
2-methylpropan-1-ol	Ministry of Health (Viet Nam, 6/2019). [butanols] STEL: 250 mg/m <sup>3</sup> 15 minutes. TWA: 150 mg/m <sup>3</sup> 8 hours.		
ethylbenzene	ACGIH TLV (United States, 1/2021). TWA: 20 ppm 8 hours.		
procedures atmosphere or biological of the ventilation or other protective equipment. Final standards. Reference to the standard of the ventilation or other protective equipment.	<b>d monitoring</b> : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectivener of the ventilation or other control measures and/or the necessity to use respirator protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.		

Appropriate engineering controls
 Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

## Section 8. Exposure controls/personal protection

Environmental exposure controls Individual protection measu	Emissions from ventilation or work process equipment should be checked to or they comply with the requirements of environmental protection legislation. In cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
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 cl Contaminated work clothing should not be allowed out of the workplace. Was contaminated clothing before reusing. Ensure that eyewash stations and safe showers are close to the workstation location.	sh
Eye/face protection	Chemical splash goggles and face shield.	
Skin protection		
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard s be worn at all times when handling chemical products if a risk assessment ind this is necessary. Considering the parameters specified by the glove manufac check during use that the gloves are still retaining their protective properties. 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 several substances, the protection time of the gloves cannot be accurately estimated.	dicates cturer, It
Gloves	: butyl rubber	
Body protection	Personal protective equipment for the body should be selected based on the t being performed and the risks involved and should be approved by a specialis before handling this product. When there is a risk of ignition from static electr wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.	st
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, hazards of the product and the safe working limits of the selected respirator. workers are exposed to concentrations above the exposure limit, they must us appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates necessary.	lf se

## **Section 9. Physical and chemical properties**

		Viet Nam	Page: 7/14
Flammability (solid, gas)	: Not available.		
Evaporation rate	: Not available.		
Flash point	: Closed cup: 26°C (78.8°F)		
Boiling point	: >37.78°C (>100°F)		
Melting point	: Not available.		
рН	: Not applicable.		
Odor threshold	: Not available.		
Odor	: Characteristic.		
Color	: Not available.		
Physical state	: Liquid.		
Appearance			

## Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.25
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n- octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C): >21 mm²/s

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides

## Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
reaction product: bisphenol-	LD50 Dermal	Rabbit	>2 g/kg	-
A-(epichlorhydrin); epoxy			00	
resin				
	LD50 Oral	Rat	>2 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
-	LD50 Oral	Rat	4.3 g/kg	-
nonylphenol	LD50 Dermal	Rabbit	2.14 g/kg	-
	LD50 Oral	Rat	580 mg/kg	-
Epoxy Resin (700 <mw< td=""><td>LD50 Dermal</td><td>Rat</td><td>&gt;2000 mg/kg</td><td>-</td></mw<>	LD50 Dermal	Rat	>2000 mg/kg	-
<=1100)				
,	LD50 Oral	Rat	>2000 mg/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
			Viet N	am Page: 8/

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4 hours

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#### Product name SIGMACOVER 380 BASE BLACK TOP/C

# Section 11. Toxicological informationethylbenzeneLD50 Oral<br/>LC50 Inhalation Vapor<br/>LD50 Dermal<br/>LD50 OralRat<br/>Rat2830 mg/kg<br/>17.8 mg/l<br/>17.8 g/kg<br/>3.5 g/kg

: There are no data available on the mixture itself.

#### Conclusion/Summary Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 Ul	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

Conclusion/Summary

: There are no data available on the mixture itself.

- : There are no data available on the mixture itself.
- Eyes: TheRespiratory: The

: There are no data available on the mixture itself.

#### **Sensitization**

Skin

Product/ingredient name	Route of exposure	Species	Result		
A-(epichlorhydrin); epoxy resin	skin	Mouse	Sensitizing		
Skin	: There are no da	ata available on the mixture itse	lf.		
Respiratory	: There are no da	There are no data available on the mixture itself.			
<u>Mutagenicity</u>					
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.				
Carcinogenicity					
<b>Conclusion/Summary</b>	: There are no d	There are no data available on the mixture itself.			
Reproductive toxicity					
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.				
<b>Teratogenicity</b>					
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.				
<u>Specific target organ toxicity (single exposure)</u>					

## Section 11. Toxicological information

<b>U</b>			
Name	Category	Route of exposure	Target organs
Alc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

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

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

#### **Aspiration hazard**

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

Information on the likely routes of exposure	:	Not available.
Potential acute health effects	È	
Eye contact	:	Causes serious eye damage.
Inhalation	:	Harmful if inhaled. May cause respiratory irritation.
Skin contact	1	May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	1	May be harmful if swallowed.
Symptoms related to the phy	<u>'sic</u>	cal, chemical and toxicological characteristics
Eye contact	:	Adverse symptoms may include the following: pain watering redness
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	:	Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

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## Section 11. Toxicological information

:	Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations
ts	and also chronic effects from short and long term exposure
:	There are no data available on the mixture itself.
1	There are no data available on the mixture itself.
1	There are no data available on the mixture itself.
:	There are no data available on the mixture itself.
<u>ect</u>	<u>S</u>
:	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.
:	No known significant effects or critical hazards.
:	No known significant effects or critical hazards.
:	Suspected of damaging fertility or the unborn child.
	:ts : : : : : : : : :

#### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	3631.11 mg/kg
Dermal	2398.87 mg/kg
Inhalation (vapors)	25.5 mg/l
Inhalation (dusts and mists)	3.28 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

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**Toxicity** 

## Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
A-(epichlorhydrin); epoxy resin	Chronic NOEC 0.3 mg/l	Daphnia	21 days
nonylphenol	Acute EC50 0.056 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic EC10 0.003 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 1 µg/l Fresh water	Daphnia - Daphnia magna	21 days
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

#### Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Peaction product: bisphenol- A-(epichlorhydrin); epoxy resin	OECD 301F	5 % - 28 days		-		-
ethylbenzene	-	79 % - Rea	dily - 10 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
A-(epichlorhydrin); epoxy resin xylene ethylbenzene	-		-		Not rea Readily Readily	,

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Peaction product: bisphenol- A-(epichlorhydrin); epoxy	2.64 to 3.78	31	low
resin			
xylene	3.12	7.4 to 18.5	low
nonylphenol	3.28	154.88	low
Phenol, methylstyrenated	3.627	-	low
2-methylpropan-1-ol	1	-	low
ethylbenzene	3.6	79.43	low

#### Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** 

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	1		
	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(reaction product: bisphenol-A- (epichlorhydrin); epoxy resin, nonylphenol)	Not applicable.

#### **Additional information**

UN	: None identified.
IMDG	: The marine pollutant mark is not required when transported in sizes of $\leq$ 5 L or $\leq$ 5 kg.
ΙΑΤΑ	: 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

#### Safety, health and environmental regulations specific for the product

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

#### Circular no. 05/1999/TT-BYT

Ingredient name	Category	Notes
benzene	Category 1	
toluene	Category 2	
xylene	Category 2	
1,4-dioxane	Category 2	
chloromethane	Category 2	
Formaldehyde, solution	Category 2	
ethylene oxide	Category 2	

#### Toxic classification (TCVN : 3

#### 3164-79)

#### International regulations

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

## Section 16. Other information

#### **History**

Date of issue/Date of revision	: 13 September 2022
Date of previous issue	: 7/19/2021
Version	: 1.02
Prepared by	: EHS
Key to abbreviations	<ul> <li>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 IBC = 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</li> </ul>
References	: Not available.

**V** Indicates information that has changed from previously issued version.

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