# **SAFETY DATA SHEET**

Date of issue/Date of revision 25 May 2023

Version2.03

# Section 1. Identification

Product code	: 000001054594
Product name	: SIGMACOVER 380 LT HARDENER
CAS number	: Not applicable.
EC number	: Mixture.
Other means of identification 00262195	
Product type	: Liquid.
Relevant identified uses of the	e substance or mixture and uses advised against
Product use	Coating. Professional applications, Used by spraying.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.
Supplier's details	: 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
Emergency telephone number (with hours of operation)	: CHEMTREC +(84)-444581938 (CCN 17704)

# Section 2. Hazards identification

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	ACUTE TOXICITY (oral) - Category 4
	ACUTE TOXICITY (dermal) - Category 5
	ACUTE TOXICITY (inhalation) - Category 4
	SKIN CORROSION - Category 1C
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	AQUATIC TOXICITY (ACUTE) - Category 2
	AQUATIC TOXICITY (CHRONIC) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 21.2%
	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 24.6%
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 50.3%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 40.5%

### **GHS label elements**



## Section 2. Hazards identification

Hazard pictograms	
Signal word	: Danger
Hazard statements	<ul> <li>Flammable liquid and vapor. Harmful if swallowed or if inhaled. May be harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. (hearing organs) Toxic to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	
Prevention	: 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. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. 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

: Mixture

## **CAS number/other identifiers**

CAS number	: Not applicable.
EC number	: Mixture.

Version 2.03

#### Product name SIGMACOVER 380 LT HARDENER

# Section 3. Composition/information on ingredients

Ingredient name	CAS number	Chemical formula	%
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	68082-29-1	(C6H18N4. Unspecified. Unspecified)x	≥10 - ≤25
2-methylpropan-1-ol ethylbenzene	78-83-1 100-41-4	C4-H10-O C8-H10	≥10 - <20 ≥10 - ≤22
benzyl alcohol xylene	100-51-6 1330-20-7	C7-H8-O C8-H10	≤14 ≤10
2,4,6-tris(dimethylaminomethyl)phenol Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol	90-72-2 445498-00-0	C15-H27-N3-O (C6H6O.C5H14N2. CH2O)x	≤6.7 ≤5

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 : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important s	ymptoms/effects,	acute and delayed

Potential acute health effectsEye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.Ingestion: Harmful if swallowed.Over-exposure signs/symptomsEye contact: Adverse symptoms may include the following: pain watering rednessInhalation: Adverse symptoms may include the following: respiratory tract irritation coughingSkin contact: Adverse symptoms may include the following: respiratory tract irritation rednessSkin contact: Adverse symptoms may include the following: respiratory tract irritation coughingSkin contact: Adverse symptoms may include the following: redness dryness cracking blistering may occur		Viet Nam Page: 2/12
Eye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.Ingestion: Harmful if swallowed.Over-exposure signs/symptomsEye contact: Adverse symptoms may include the following: pain watering rednessInhalation: Adverse symptoms may include the following: respiratory tract irritation coughing	Skin contact	pain or irritation redness dryness cracking
Eye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.Ingestion: Harmful if swallowed.Over-exposure signs/symptomsEye contact: Adverse symptoms may include the following: pain watering		respiratory tract irritation coughing
Eye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.Ingestion: Harmful if swallowed.Over-exposure signs/symptoms	Eye contact	pain watering
Eye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.Ingestion: Harmful if swallowed.		
Eye contact: Causes serious eye damage.Inhalation: Harmful if inhaled. May cause respiratory irritation.Skin contact: Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.	-	
Eye contact : Causes serious eye damage.		May cause an allergic skin reaction.
	Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Potential acute health effects	Eye contact	: Causes serious eye damage.
	Potential acute health effect	<u>s</u>

Viet Nam Page: 3/13

## Section 4. First aid measures

Ingestion	: Adverse symptoms may include the following: stomach pains
Indication of immediate	medical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments	: No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

#### See toxicological information (Section 11)

# 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 toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds
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

Personal precautions, protecti	ve equipment and emergency procedures		
For non-emergency personnel	No action shall be taken involving any personal risk or with Evacuate surrounding areas. Keep unnecessary and unpertering. Do not touch or walk through spilled material. No flares, smoking or flames in hazard area. Do not breat adequate ventilation. Wear appropriate respirator when you Put on appropriate personal protective equipment.	protected perso Shut off all ignit athe vapor or m	nnel from ion sources. ist. Provide
For emergency responders	: If specialized clothing is required to deal with the spillage information in Section 8 on suitable and unsuitable mater information in "For non-emergency personnel".		
		Viet Nam	Page: 4/13

Product code 000001054594

Product name SIGMACOVER 380 LT HARDENER

# Section 6. Accidental release measures

Environmental precautions Methods and materials for co	: 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.
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and
Sman spin	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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Version 2.03

# Section 8. Exposure controls/personal protection

## Control parameters

## **Occupational exposure limits**

Ingredient name	Exposure limits	
2-methylpropan-1-ol ethylbenzene	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. ACGIH TLV (United States, 1/2022). Ototoxicant. TWA: 20 ppm 8 hours.	
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.	
Recommended monitoring procedures	Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.	
Appropriate engineering controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering contaiso need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.	trols
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensite they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
Individual protection measu		
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, be eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated cloth 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.	ning.
Eye/face protection	Chemical splash goggles and face shield.	
Skin protection		
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard sho be worn at all times when handling chemical products if a risk assessment indica this is necessary. Considering the parameters specified by the glove manufactu 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.	ates urer,
Gloves	nitrile neoprene	
Body protection	Personal protective equipment for the body should be selected based on the tas 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 electricit wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.	
	Viet Nam Page	: 6/13

Product name SIGMACOVER 380 LT HARDENER

## Section 8. Exposure controls/personal protection

Other skin protection	<ul> <li>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.</li> </ul>
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

# Section 9. Physical and chemical properties

Appearance				
Physical state	:	Liquid.		
Color	:	Colorless.		
Odor	:	Amine-like.		
Odor threshold	:	Not available.		
рН	:	Not applicable.		
Melting point	:	Not available.		
Boiling point	:	>37.78°C (>100°F)		
Flash point	:	Closed cup: 29°C (84.2°F)		
Evaporation rate	:	Not available.		
Flammability (solid, gas)	1	Not available.		
Lower and upper explosive (flammable) limits	1	Greatest known range: Lower: 1.3% Upper: 13% (benzyl alcohol)		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	1	0.93		
Solubility(ico)		Media Result		
Solubility(ies)	1	cold water Not soluble		
Partition coefficient: n- octanol/water	:	Not applicable.		
Auto-ignition temperature	:	Not available.		
Decomposition temperature	:	Not available.		
Viscosity	:	Kinematic (40°C): >21 mm²/s		
Viscosity	:	40 - <60 s (ISO 6mm)		

# Section 10. Stability and reactivity

	Viet Nam Page: 7/13
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Chemical stability	: The product is stable.
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.

Product code 000001054594

Version 2.03

## Product name SIGMACOVER 380 LT HARDENER

# Section 10. Stability and reactivity

Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds

# Section 11. Toxicological information

## Information on toxicological effects

## Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and	LD50 Dermal	Rat	>2000 mg/kg	-
triethylenetetramine	LD50 Oral	Rat	>2000 ma/ka	
2-methylpropan-1-ol	LC50 Inhalation Vapor LD50 Dermal	Rat Rabbit	>2000 mg/kg 24.6 mg/l 2460 mg/kg	- 4 hours -
	LD50 Oral	Rat	2830 mg/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	-
benzyl alcohol	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat Rabbit Rat	>4178 mg/m³ 2000 mg/kg 1.23 g/kg	4 hours - -
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
, , , , , , , , , , , , , , , , , , ,	LD50 Oral	Rat	4.3 g/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Dermal	Rabbit	1.28 g/kg	-
•	LD50 Dermal LD50 Oral	Rat Rat	1280 mg/kg 1200 mg/kg	-

**Conclusion/Summary** 

: There are no data available on the mixture itself.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Eyes - Severe irritant	Rabbit	-	-	-
anouryionototidamino	Skin - Irritant	Human	_	_	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2,4,6-tris (dimethylaminomethyl) phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days
Conclusion/Summary				•	•
Skin	• There are no data avai	lable on the mi	xture itself		

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.

# Section 11. Toxicological information

## **Sensitization**

Product/ingredient name	Route of exposure	Species	Result			
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	Mouse	Sensitizing			
Skin	: There are no d	ata available on the mixture itse	elf.			
Respiratory	: There are no d	: There are no data available on the mixture itself.				
<b>Mutagenicity</b>						
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.					
<b>Carcinogenicity</b>						
<b>Conclusion/Summary</b>	: There are no d	ata available on the mixture itse	elf.			
Reproductive toxicity						
Conclusion/Summary	: There are no data available on the mixture itself.					
<b>Teratogenicity</b>						
Conclusion/Summary	: There are no d	ata available on the mixture itse	elf.			

## Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
xylene	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

## 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 2
ethylbenzene	ASPIRATION HAZARD - Category 1
benzyl alcohol	ASPIRATION HAZARD - Category 2
xylene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	1	Harmful if inhaled. May cause respiratory irritation.
Skin contact	1	Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	1	Harmful if swallowed.

Version 2.03

Product name SIGMACOVER 380 LT HARDENER

## Section 11. Toxicological information

#### Symptoms related to the physical, 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	
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur	
Ingestion	: Adverse symptoms may include the following: stomach pains	
Delayed and immediate effect	s and also chronic effects from short and long term exposure	
<u>Short term exposure</u>		
Potential immediate effects	: There are no data available on the mixture itself.	
Potential delayed effects	: There are no data available on the mixture itself.	
Long term exposure		
Potential immediate effects	: There are no data available on the mixture itself.	
Potential delayed effects	: There are no data available on the mixture itself.	
Potential chronic health eff	<u>ets</u>	
General	: May cause damage to organs through prolonged or repeated exposure. Prolonge 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.	d
Carcinogenicity	: No known significant effects or critical hazards.	
Mutagenicity	: No known significant effects or critical hazards.	
Reproductive toxicity	: No known significant effects or critical hazards.	

#### Numerical measures of toxicity

t

#### **Acute toxicity estimates**

Route	ATE value
Oral	1978.26 mg/kg
Dermal	2600.72 mg/kg
Inhalation (vapors)	31.93 mg/l
Inhalation (dusts and mists)	2.22 mg/l

### Other information

Prolonged or repeated contact may dry skin and cause irritation. 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

## <u>Toxicity</u>

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 2-methylpropan-1-ol	EC10 1.78 mg/l Acute EC50 1100 mg/l	Algae Daphnia	72 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - Ceriodaphnia dubia	48 hours -
2,4,6-tris (dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours

## Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum	
ethylbenzene	-	79 % - F	79 % - Readily - 10 days			-	
Product/ingredient name	Aquatic ha	alf-life	Photolysis		Biode	gradability	
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine ethylbenzene benzyl alcohol xylene	- - -		- - -		Not re Readil Readil Readil	y y	

## **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
2-methylpropan-1-ol	1	-	low
ethylbenzene	3.6	79.43	low
benzyl alcohol	0.87	-	low
xylene	3.12	7.4 to 18.5	low
2,4,6-tris	0.219	-	low
(dimethylaminomethyl)pheno	I		

#### Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Viet Nam Page: 11/13

Product name SIGMACOVER 380 LT HARDENER

## Section 13. Disposal considerations

: The generation of waste should be avoided or minimized wherever possible. **Disposal methods** 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	ΙΑΤΑ
UN number	UN3469	UN3469	UN3469
UN proper shipping name	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE
Transport hazard class(es)	3 (8)	3 (8)	3 (8)
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.	(Polyamide, Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol)	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

Product name SIGMACOVER 380 LT HARDENER

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
xylene	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

<u>History</u>	
Date of issue/Date of revision	: 25 May 2023
Date of previous issue	: 5/22/2023
Version	: 2.03
Prepared by	: EHS
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate 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
References	: Not available.

**V** 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.