# SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to GHS UN rev. 7

Date of issue/Date of revision 17 April 2024

Version 4.01

Section 1. Identification	
Product code Product name Product type Other means of identification 00151066; 00381851	: 000001011151 : PHENGUARD 930/935/940 HARDENER : Liquid. n
Relevant identified uses of t	he 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.
Company/undertaking identification	: PPG Industries Sales, Inc. and PPG Coatings (Philippines), Inc. 3rd Floor First Life Center 174 Salcedo St., Legaspi Village Makati City 1229, Philippines Tel # 00632- 752-6773/ Fax # 00632-752-6771
Emergency telephone number	: CHEMTREC +(63) 2-395-3308 (CCN 17704)

# Section 2. Hazards identification

Classification of the substance or mixture	<ul> <li>FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 24.4% Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 24.4% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 45.2%</li> </ul>
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 36.6%

### **GHS label elements**

### Section 2. Hazards identification

Hazard pictograms		
Signal word	Danger	
Hazard statements	Flammable liquid and vapor. Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.	
Precautionary statements		
Prevention	Wear protective gloves, protective clothing and eye or face protection. Keep awa 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. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should no be allowed out of the workplace.	6
Response	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately of 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 wa 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.	ater.
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.	
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

<b>CAS number</b> : Not applicable.		
Ingredient name	%	CAS number
xylene	20 - <25	1330-20-7
3-aminopropyldiethylamine	10 - <20	104-78-9
benzyl alcohol	10 - <20	100-51-6
2-methylpropan-1-ol	5 - <10	78-83-1
m-phenylenebis(methylamine)	3 - <5	1477-55-0
ethylbenzene	3 - <5	100-41-4
N-(3-(trimethoxysilyl)propyl)ethylenediamine	3 - <5	1760-24-3
salicylic acid	0.3 - <1	69-72-7
toluene	0.1 - <0.3	108-88-3

Product code 000001011151 Product name PHENGUARD 930/935/940 HARDENER

# Section 3. Composition/information on ingredients

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 necess	sary first aid measures
Eye contact	<ul> <li>Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.</li> </ul>
Inhalation	: 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 symptoms/effects, acute and delayed

### Potential acute health effects

Potential acute health effects	
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.
Over-exposure signs/sympto	<u>ms</u>
	: 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
Indication of immediate medic	al 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.

### Section 4. First aid measures

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 harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides Formaldehyde.
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for co	ntainment 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.

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

# Section 8. Exposure controls/personal protection

### Control parameters

**Occupational exposure limits** 

5
s, 4/2016). [Xylene]
<sup>³</sup> 8 hours. <b>s, 4/2016).</b>
1³ 8 hours. 8 hours.
ited States, 1/2023). ıgh skin.
igii skili.
<b>s, 4/2016).</b> 35 mg/m³ 8 hours.
) >

**Philippines** 

# Section 8. Exposure controls/personal protection

toluene	TLV-Ceiling: 100 ppm 8 hours. <b>TLV (Philippines, 4/2016).</b> TLV: 375 mg/m <sup>3</sup> 8 hours. TLV: 100 ppm 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 control also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental exposure controls	<ul> <li>Emissions from ventilation or work process equipment should be checked to ensure 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.</li> </ul>
Individual protection measur	<u>5</u>
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
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	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

# Section 9. Physical and chemical properties

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

#### **Appearance**

Physical state Color	1	Liquid. Colorless.						
Odor	÷	Amine-like.						
Odor threshold		Not available.						
Melting point/freezing point		Not available.						
Boiling point, initial boiling point, and boiling range		>37.78°C (>100°F)						
Flammability	:	Not available.						
Lower and upper explosive (flammable) limits	:	Not available.						
Flash point	:	Closed cup: 28°C (8	2.4°F)					
Auto-ignition temperature	:	225°C (437°F)						
Decomposition temperature	:	Not available.						
рН	1	Not applicable.						
Viscosity	:	Kinematic (40°C): >2	21 mm²/s					
Viscosity	:	30 - <40 s (ISO 6mn	n)					
Solubility(ies)		Media Result						
Solubility(les)		cold water	Nc	t solubl	e			
Partition coefficient: n- octanol/water	:	Not applicable.						
Vapor pressure	:		Vapo	r Press	ure at 20°C	Vap	or press	ure at 50°C
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2-methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2			
Relative density	1	0.93			·			
Bulk density (g/cm³)	:	0.93						
Relative vapor density	:	Not available.						
Particle characteristics								
Median particle size	:	Not applicable.						
Evaporation rate		Not available.						

### 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.

# 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 Hazardous polymerization		Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides Under normal conditions of storage and use, hazardous polymerization will not occur.

# 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	-
3-aminopropyldiethylamine	LD50 Dermal	Rabbit	524 mg/kg	-
	LD50 Oral	Rat	830 mg/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m <sup>3</sup>	4 hours
-	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 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	-
m-phenylenebis	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
(methylamine)				
	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female		
	LD50 Oral	Rat	930 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
5	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
N-(3-(trimethoxysilyl)propyl)	LD50 Dermal	Rabbit	>2000 mg/kg	-
ethylenediamine				
5	LD50 Oral	Rat	2413 mg/kg	-
salicylic acid	LD50 Oral	Rat	0.891 g/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

### Conclusion/Summary

: There are no data available on the mixture itself.

### Irritation/Corrosion

				1
kin - Moderate irritant	Rabbit		24 hours 500 ma	-
kin - Visible necrosis kin - Severe irritant	Rabbit Rat	-	1 minutes	8 days 4 hours
k	in - Visible necrosis	in - Visible necrosis Rabbit	in - Visible necrosis Rabbit -	in - Visible necrosis Rabbit - 1 minutes

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	

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# Section 11. Toxicological information

	U		
Product/ingredient name	Route of exposure	Species	Result
m-phenylenebis (methylamine)	skin	Mouse	Sensitizing
<b>Conclusion/Summary</b>			
Skin	: There are no d	lata available on the mixture itse	elf.
Respiratory	: There are no d	lata available on the mixture itse	elf.
<u>Mutagenicity</u>			
<b>Conclusion/Summary</b>	: There are no d	lata available on the mixture itse	elf.
<b>Carcinogenicity</b>			
<b>Conclusion/Summary</b>	: There are no d	lata available on the mixture itse	elf.
Reproductive toxicity			
Conclusion/Summary	: There are no d	lata available on the mixture itse	əlf.
Teratogenicity			
Conclusion/Summary	: There are no d	lata available on the mixture itse	elf.

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

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Category 3	-	Respiratory tract irritation
toluene	Category 3	-	Narcotic effects

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

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

### **Aspiration hazard**

Name	Result
xylene	ASPIRATION HAZARD - Category 1
benzyl alcohol	ASPIRATION HAZARD - Category 2
2-methylpropan-1-ol	ASPIRATION HAZARD - Category 2
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	1	Not available.
Potential acute health effects		
Eye contact	÷	Causes serious eye damage.
Inhalation	÷	Harmful if inhaled. May cause

: Harmful if inhaled. May cause respiratory irritation.

# Section 11. Toxicological information

Ingestion       : Harmful if swallowed.         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: pain or irritation coughing         Skin contact       : Adverse symptoms may include the following: respiratory tract irritation coughing         Skin contact       : Adverse symptoms may include the following: pain or irritation redness dryness cracking bilstering may occur         Ingestion       : Adverse symptoms may include the following: stomach pains         Delayed and immediate effects and also chronic effects from short and long term exposure         Potential immediate       : Not available. effects         effects       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential delayed effects       : Not available.         effects       : Not available.         Potential chronic health effects       : Not available.         Potential chayed effects       : Not available.		<u> </u>
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 bilstering may occur         Ingestion       : Adverse symptoms may include the following: stomach pains         Delayed and immediate effects and also chronic effects from short and long term exposure         Short term exposure       Not available.         Potential immediate       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects       : Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or	Skin contact	: Causes severe burns. Harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
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: 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 effects and also chronic effects from short and long term exposure         Short term exposure         Potential immediate       : Not available. effects         effects       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential immediate       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects       : Not available.         Potential chronic health effects       : Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Ingestion	: Harmful if swallowed.
pain watering redness       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 bilistering may occur         Ingestion       : Adverse symptoms may include the following: stomach pains         Delayed and immediate effects and also chronic effects from short and long term exposure         Short term exposure         Potential immediate       : Not available.         effects       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential delayed effects       : Not available.         Potential delayed effects       : Not available.         Potential immediate       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects       : Not available.         Potential delayed effects       : Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Symptoms related to the phy	
respiratory tract irritation       coughing         Skin contact       : Adverse symptoms may include the following:         pain or irritation       redness         dryness       cracking         blistering may occur       Ingestion         Ingestion       : Adverse symptoms may include the following:         stomach pains       cracking         Delayed and immediate effects and also chronic effects from short and long term exposure         Short term exposure       Potential immediate         Potential immediate       : Not available.         effects       Potential delayed effects         Potential immediate       : Not available.         effects       Potential delayed effects         Potential delayed effects       : Not available.         effects       Potential delayed effects         Potential delayed effects       : Not available.         effects       Potential delayed effects         Potential chronic health effects         Not available.       .         Eonorial chronic health effects         Not available.       .         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         C	Eye contact	pain watering
pain or irritation         redness         dryness         cracking         blistering may occur         Ingestion         : Adverse symptoms may include the following: stomach pains         Delayed and immediate effects and also chronic effects from short and long term exposure         Short term exposure         Potential immediate       : Not available.         effects         Potential delayed effects       : Not available.         Long term exposure         Potential immediate       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects       : Not available.         Potential chronic health effects       : Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Inhalation	respiratory tract irritation
Delayed and immediate effects and also chronic effects from short and long term exposure         Short term exposure         Potential immediate       : Not available.         effects         Potential delayed effects       : Not available.         Long term exposure         Potential immediate       : Not available.         Long term exposure         Potential delayed effects       : Not available.         effects         Potential delayed effects       : Not available.         effects         Potential delayed effects       : Not available.         Potential chronic health effects         Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking
Short term exposure         Potential immediate       : Not available.         effects         Potential delayed effects       : Not available.         Long term exposure         Potential immediate       : Not available.         effects         Potential delayed effects       : Not available.         effects         Potential delayed effects       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects         Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	-	stomach pains
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Long term exposure         Potential immediate       : Not available.         effects         Potential delayed effects       : Not available.         Potential chronic health effects         Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.		: Not available.
Potential immediate       : Not available.         effects       : Not available.         Potential delayed effects       : Not available.         Potential chronic health effects       : Not available.         Not available.       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Potential delayed effects	: Not available.
effects         Potential delayed effects       : Not available.         Potential chronic health effects         Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Long term exposure	
Potential chronic health effects         Not available.         General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.		: Not available.
Not available.       General       : Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.         Carcinogenicity       : No known significant effects or critical hazards.	Potential delayed effects	: Not available.
General: Prolonged or repeated contact can defat the skin and lead to irritation, crackin or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.Carcinogenicity: No known significant effects or critical hazards.	Potential chronic health eff	<u>ects</u>
or dermatitis.Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.Carcinogenicity: No known significant effects or critical hazards.	Not available.	
	General	
Mutagenicity : No known significant effects or critical hazards.	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

### Acute toxicity estimates

Route	ATE value
Oral	1621.45 mg/kg
Dermal	1276.35 mg/kg
Inhalation (gases)	55034.6 ppm
Inhalation (vapors)	23.12 mg/l
Inhalation (dusts and mists)	2.06 mg/l

#### Other information

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# Section 11. Toxicological 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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F). Avoid contact with skin and clothing. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

# Section 12. Ecological information

**Toxicity** 

Product/ingredient name	Result	Species	Exposure
3-aminopropyldiethylamine	Acute EC50 30.2 mg/l	Daphnia	48 hours
	Acute EC50 146.6 mg/l	Fish	96 hours
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	-
N-(3-(trimethoxysilyl)propyl) ethylenediamine	EC50 597 mg/l	Fish	96 hours
salicylic acid	Acute EC50 1147.57 mg/l Fresh water	Daphnia - <i>Daphnia longispina</i> - Neonate	48 hours
	Chronic NOEC 5.6 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days

### Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
3-aminopropyldiethylamine ethylbenzene	OECD 301A -		idily - 28 days idily - 10 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	<b>Jradability</b>
xylene 3-aminopropyldiethylamine benzyl alcohol ethylbenzene toluene	- - - -		- - - -		Readily Readily Readily Readily Readily	   

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
benzyl alcohol	0.87	-	Low
2-methylpropan-1-ol	1	-	Low
m-phenylenebis (methylamine)	0.18	2.69	Low
ethylbenzene	3.6	79.43	Low
salicylic acid	2.21 to 2.26	-	Low
toluene	2.73	8.32	Low

### Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

**Philippines** 

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# Section 12. Ecological information

Other adverse effects

: No known significant effects or critical hazards.

### 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	IATA
UN number	UN3470	UN3470	UN3470
UN proper shipping name	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE
Transport hazard class(es)	8 (3)	8 (3)	8 (3)
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

#### Additional information

- UN : None identified. IMDG : None identified.
- ΙΑΤΑ : 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.

Transport in bulk according : Not applicable. to IMO instruments

# Section 15. Regulatory information

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	: 17 April 2024
Date of previous issue	: 2/19/2024
Version	: 4.01
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 = 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</li> </ul>

#### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
ACUTE TOXICITY (dermal) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 1	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract	Calculation method
irritation) - Category 3	
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

### 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 us, 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.