



Date of issue/Date of revision 4 April 2020

operation)

Version 6.02			
Section 1. Identification			
Product code	: 00254175		
Product name	: SIGMAZINC 109 HARDENER		
Other means of identification	: Not available.		
Product type	: Liquid.		
Relevant identified use	es of the substance or mixture and uses advised against		
Product use	: Coating. Paint. Painting-related materials.		
Supplier's details	PPG Coatings (Thailand) Co. Ltd		

Supplier's details	: PPG Coatings (Thailand) Co., Ltd. 15 Rama 9 Road, Kwaeng Huamark, Khet Bangkapi, Bangkok 10240 Thailand T: 662-319-4190 #224 F: 662-319-4189
Emergency telephone number (with hours of	: CHEMTREC 001-800-13-203-9987 (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 4
	ACUTE TOXICITY (inhalation) - Category 4
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
	SKIN SENSITIZATION - Category 1A
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
	ASPIRATION HAZARD - Category 1
	AQUATIC HAZARD (ACUTE) - Category 3
	AQUATIC HAZARD (LONG-TERM) - Category 3
	Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 35.9%
	(Oral), 35.9% (Dermal), 42.2% (Inhalation)
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the
	aquatic environment: 55.2%

GHS label elements

Section 2. Hazards identification

Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. Harmful in contact with skin or if inhaled. May be harmful if swallowed. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. May be fatal if swallowed and enters airways. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material- handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	: Causes digestive tract burns. 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.

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Product name SIGMAZINC 109 HARDENER

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
xviene	25- <50	1330-20-7
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	20- <25	68410-23-1
ethylbenzene	5- <10	100-41-4
2-methylpropan-1-ol	5- <10	78-83-1
1-methoxy-2-propanol	3 - <5	107-98-2
3,6-diazaoctanethylenediamin toluene	1- <3 0.1- <0.3	112-24-3 108-88-3

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

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures Eye contact : 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 symptoms/effects, acute and delayed

<u>Most important symptoms/enects, acute and delayed</u>		
Potential acute health effects		
Eye contact :	Causes serious eye damage.	
Inhalation :	Harmful if inhaled. May cause respiratory irritation.	
Skin contact :	Harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.	
Ingestion :	May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. May be fatal if swallowed and enters airways.	
Over-exposure signs/symptoms		
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	

Section 4. First aid measures

Ing	estion
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: Adverse symptoms may include the following: stomach pains nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary			
Notes to physician	1	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Specific treatments	1	No specific treatment.	
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , 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
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 containment and cleaning up			
Small spill	 Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal 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		

Stop leak if without risk. Move containers from spin 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 : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and handling processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during

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Section 7. Handling and storage

transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

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	
xylene	Ministry of Labor (Thailand, 8/2017).	
	TWA: 100 ppm 8 hours.	
ethylbenzene	Ministry of Labor (Thailand, 8/2017).	
2-methylpropan-1-ol	TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2019).	
	TWA: 152 mg/m ³ 8 hours.	
	TWA: 102 mg/m 0 hours.	
1-methoxy-2-propanol	ACGIH TLV (United States, 3/2019).	
	STEL: 369 mg/m ³ 15 minutes.	
	STEL: 100 ppm 15 minutes.	
	TWA: 184 mg/m³ 8 hours.	
	TWA: 50 ppm 8 hours.	
toluene	Ministry of Labor (Thailand, 8/2017).	
	CEIL: 300 ppm	
	STEL: 500 ppm 10 minutes. TWA: 200 ppm 8 hours.	
procedures atmos of the protect stand	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory 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.	
controls or oth below	nly with adequate ventilation. Use process enclosures, local exhaust ventilation er engineering controls to keep worker exposure to airborne contaminants any recommended or statutory limits. The engineering controls also need to gas, vapor or dust concentrations below any lower explosive limits. Use	

explosion-proof ventilation equipment.

Section 8. Exposure controls/personal protection

Environmental exposure controls	:	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.
Individual protection measur	<u>es</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 protection	:	Chemical splash goggles and face shield.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	:	butyl rubber
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance	
Physical state	: Liquid.
Color	: Yellow.
Odor	: Amine-like.
Odor threshold	: Not available.
рН	: insoluble in water.
Melting point	:

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Section 9. Physical and chemical properties

	May start to solidify at the following temperature: 12°C (53.6°F) This is based on data for the following ingredient: 3,6-diazaoctanethylenediamin. Weighted average: -85.58°C (-122°F)
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 26°C (78.8°F)
Evaporation rate	: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.77compared with butyl acetate
Flammability (solid, gas)	: liquid
Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)
Vapor pressure	: Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.7 kPa (5.25 mm Hg) (at 20°C)
Vapor density	: Highest known value: 5.04 (Air = 1) (3,6-diazaoctanethylenediamin). Weighted average: 3.58 (Air = 1)
Relative density	: 0.91
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n- octanol/water	: Not applicable.
Auto-ignition temperature	: 290°C
Decomposition temperature	: Stable under recommended storage and handling conditions (see Section 7).
Viscosity	: Kinematic (40°C): <0.14 cm²/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	: Evolves hydrogen on contact with water. Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides	

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
3,6-diazaoctanethylenediamin	LD50 Dermal	Rabbit	805 mg/kg	-
•	LD50 Oral	Rat	2500 mg/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	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

Product/ingredient name	Result		Species	Score	Exposure	Observation
x ylene	Skin - Moderate ir	ritant	Rabbit	-	24 hours 500 mg	-
Conclusion/Summary						
Skin :	There are no data	available	on the mixtur	e itself.		
Eyes :	There are no data	available	on the mixtur	e itself.		
Respiratory :	There are no data	available	on the mixtur	e itself.		
<u>Sensitization</u>						
Product/ingredient name	Route of exposure	Species	•	I	Result	
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	skin	Mouse			Sensitizing	
3,6-diazaoctanethylenediamin	skin	Guinea	pig		Sensitizing	
Conclusion/Summary						
Skin :	There are no data	available	on the mixtur	e itself.		
Respiratory :	There are no data	available	on the mixtur	e itself.		
Mutagenicity						
Conclusion/Summary :	There are no data	available	on the mixtur	e itself.		
Carcinogenicity						
	There are no data	available	on the mixtur	e itself.		
Reproductive toxicity						
	There are no data	availahle	on the mixtur	e itself		
		available		0 10011.		

Section 11. Toxicological information

Teratogenicity

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

Specific target organ toxicity (single exposure)

Name	• •	Route of exposure	Target organs
2-methylpropan-1-ol	Category 3	Not applicable. Not applicable. Not applicable.	Respiratory tract irritation Narcotic effects Respiratory tract irritation
1-methoxy-2-propanol toluene	0,	Not applicable. Not applicable.	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
	Category 2 Category 2		hearing organs Not determined

Aspiration hazard

Name	Result
x /lene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
2-methylpropan-1-ol	ASPIRATION HAZARD - Category 2
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

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Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. May be fatal if swallowed and enters airways.
	he 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

Section 11. Toxicological information

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	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 nausea or vomiting

Delayed and immediate effect	and also chronic effects from short and long term exposure	
<u>Short term exposure</u>		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Long term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Potential chronic health eff	<u>ts</u>	
General	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.	/
Carcinogenicity	No known significant effects or critical hazards.	
Mutagenicity	No known significant effects or critical hazards.	
Teratogenicity	No known significant effects or critical hazards.	
Developmental effects	No known significant effects or critical hazards.	
Fertility effects	No known significant effects or critical hazards.	

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	4276.49 mg/kg
Dermal	1469.22 mg/kg
Inhalation (vapors)	12.96 mg/l
Inhalation (dusts and mists)	1.67 mg/l

Other information

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Section 11. Toxicological information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines, 3,6-diazaoctanethylenediamin. May produce an allergic reaction.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	EC50 4.11 mg/l Fresh water	Algae	72 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours

Persistence/degradability

dimers, reaction products

Product/ingredient name	Test	Result		Dose	Inoculum
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	-	15 % - 28 days		-	-
Conclusion/Summary : There are no data available on the mixture itself.					
Product/ingredient name	Aquatic half-life		Photolysis	S	Biodegradability
₩lene Fatty acids, C18-unsatd.,	-		-		Readily Not readily

with polyethylenepolyamines ethylbenzene toluene	-	Readily Readily

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Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
x lene	3.16	7.4 to 18.5	low
ethylbenzene	3.15	79.43	low
2-methylpropan-1-ol	0.76	-	low
3,6-diazaoctanethylenediamin	-1.66 to -1.4	-	low
toluene	2.73	8.32	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

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

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Section 14. Transport information

Additional information

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

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

Section 15. Regulatory information

: Listed

Safety, health and environmental regulations specific for the product

Harmful Chemicals List

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

International regulations

Montreal Protocol

Not listed.

Section 16. Other information

<u>History</u>

Date of issue/Date of : 4 April 2020 revision Date of previous issue : 10/12/2019 Version : 6.02 : EHS **Prepared by** Key to abbreviations : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association 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) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

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.