# **SAFETY DATA SHEET**

Date of issue/Date of revision 6 September 2024

Version1.15

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# Section 1. Identification

Product code	: 000001085137
Product name	: SIGMAFAST 278 HARDENER
Other means of identification	: 00323232; 00345239; 00351714; 00453392
Product type	: Liquid.
Relevant identified uses	of the substance or mixture and uses advised against
Product use	: Hardener.
	Professional applications, Used by spraying.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.
Supplier's details	: PT PPG Coatings Indonesia JI. Rawagelam III No.1 13930 Jakarta Indonesia Tel +62 21 4605710 PMC.Safety@PPG.com
Emergency telephone number	: CHEMTREC 001-803-017-9114 (CCN 17704)

# Section 2. Hazards identification

: Danger

Signal word

Classification of the	: FLAMMABLE LIQUIDS - Category 3
substance or mixture	ACUTE TOXICITY (inhalation) - Category 4
substance of mixture	SKIN CORROSION/IRRITATION - Category 2
	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
	RESPIRATORY SENSITIZATION - Category 1
	SKIN SENSITIZATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	AQUATÍC HAZĂRĎ (LONG-TERM) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 54.6%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 49.9%
GHS label elements, inclue	ding precautionary statements
Hazard pictograms	

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Product code 000001085137 Product name SIGMAFAST 278 HARDENER

# Section 2. Hazards identification

Hazard statements	:	Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	Wear protective gloves, protective clothing and eye or face protection. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: 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. 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	:	Prolonged or repeated contact may dry skin and cause irritation.

# Section 3. Composition/information on ingredients

Substance/mixture	
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: Mixture

#### **CAS number/other identifiers**

CAS number	: Not applicable.
EC number	: Mixture.

Ingredient name	%	CAS number
xylene	25- <50	1330-20-7
proprietary aralkylpolyamine	10- <20	SUB119920
1-methoxy-2-propanol	5- <10	107-98-2
benzyl alcohol	5- <10	100-51-6
ethylbenzene	3- <5	100-41-4
2,4,6-tris(dimethylaminomethyl)phenol	3- <5	90-72-2
Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol	3- <5	445498-00-0
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil	3- <5	68082-29-1
fatty acids and triethylenetetramine		
ethylenediamine	0.3- <1	107-15-3

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## Section 3. Composition/information on ingredients

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 symptoms/effects, acute and delayed

#### Potential acute health effects

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Specific treatments	: No specific treatment.
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.
Indication of immediate m	nedical attention and special treatment needed, if necessary
Ingestion	: Adverse symptoms may include the following: stomach pains
	pain or irritation redness dryness cracking blistering may occur
Skin contact	respiratory tract irritation coughing wheezing and breathing difficulties asthma : Adverse symptoms may include the following:
Inhalation	watering redness : Adverse symptoms may include the following:
Eye contact	: Adverse symptoms may include the following: pain watering
<u>Over-exposure signs/syr</u>	nptoms
Ingestion	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Inhalation	<ul> <li>Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.</li> </ul>
Eye contact	: Causes serious eye damage.

### Section 4. First aid measures

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.
	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
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, protective equipment and emergency procedures

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

#### Methods and materials for containment and cleaning up

Section 6. Accidental release measures

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

# Section 7. Handling and storage

Precautions for safe handling	L	
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease 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**

Ingredient name	Exposure limits		
xylene	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). [xilen] TWA: 434 mg/m <sup>3</sup> 8 hours. TWA: 100 BDS 8 hours. STEL: 651 mg/m <sup>3</sup> 15 minutes. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 651 mg/m <sup>3</sup> 15 minutes. STEL: 150 BDS 15 minutes.		
1-methoxy-2-propanol	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 100 BDS 8 hours. STEL: 150 BDS 15 minutes. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 553 mg/m <sup>3</sup> 15 minutes. STEL: 150 BDS 15 minutes.		
ethylbenzene	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). TWA: 20 BDS 8 hours. Ministry of Employment and Labor (Indonesia, 2/1997). STEL: 543 mg/m <sup>3</sup> 15 minutes. STEL: 125 BDS 15 minutes.		
ethylenediamine	Minister of Labor of the Republic of Indonesia (Indonesia, 4/2018). Absorbed through skin. TWA: 10 BDS 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 controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.		
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 measures

Section 8. Exposure controls/personal protection

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Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Chemical splash goggles 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	<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	: Use an air-fed respirator unless a site-specific assessment determines that an air- fed respirator is not necessary, in which case the results of the risk assessment should be utilized to determine whether respiratory protection is necessary and what type of protection is appropriate. 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.

# Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Colorless.
Odor	: Aromatic. [Slight]
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/Combustible properties (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)
Vapor pressure	: Not available.
Vapor density	: Not available.

# Section 9. Physical and chemical properties

Relative density	1	0.97
Solubility(ies)		Media Result
	. cold water	cold water Not soluble
Partition coefficient: n- octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	;	Kinematic (room temperature): >400 mm²/s Kinematic (40°C): >21 mm²/s
Viscosity	:	60 - 100 s (ISO 6mm)

# Section 10. Stability and reactivity

	-
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides 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	-
1-methoxy-2-propanol	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
2	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/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	-
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	-
2,4,6-tris	LD50 Dermal	Rat	1280 mg/kg	-
(dimethylaminomethyl) phenol				
	LD50 Oral	Rat	1200 mg/kg	-

#### Product code 000001085137 Product name SIGMAFAST 278 HARDENER

# Section 11. Toxicological information

	U			
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	LD50 Dermal	Rat	>2000 mg/kg	-
ethylenediamine	LD50 Oral LD50 Dermal LD50 Oral	Rat Rabbit Rat	>2000 mg/kg 0.73 g/kg 0.5 g/kg	- - -

#### **Conclusion/Summary**

: There are no data available on the mixture itself.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Eyes - Severe irritant	Rabbit	-	-	-
,	Skin - Irritant	Human	-	-	-

#### Conclusion/Summary

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

#### **Sensitization**

Skin

Eyes

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

#### **Conclusion/Summary**

Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
Mutagenicity	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
<b>Carcinogenicity</b>	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
Reproductive toxicity	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
Teratogenicity	
<b>Conclusion/Summary</b>	: There are no data available on the mixture itself.
Specific target organ tox	<u>icity (single exposure)</u>

# Section 11. Toxicological information

Name		Category		Route of exposure	Target organs
xylene		Category 3		-	Respiratory tract
1-methoxy-2-propanol		Category 3		-	irritation Narcotic effects
Specific target organ toxic	tity (repeated exposure)				
Name		Category		Route of exposure	Target organs
ethylbenzene		Category 2	Category 2		hearing organs
Aspiration hazard		-			
Name			Resu	ılt	
xylene ethylbenzene					RD - Category 1 RD - Category 1
Information on the likely routes of exposure	: Not available.				
Potential acute health effec	<u>ts</u>				
Eye contact	: Causes serious eye dam	nage.			
Inhalation	: Harmful if inhaled. May symptoms or breathing c			tation. May cau	use allergy or asthma
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.				
Ingestion	: No known significant effe	ects or critical ł	nazaro	ls.	
Symptoms related to the pl	nysical, chemical and toxicol	logical charac	<u>terist</u>	ics	
Symptoms related to the pl Eye contact	ysical, chemical and toxicol : Adverse symptoms may pain watering redness				
	: Adverse symptoms may pain watering	include the foll	lowing		
Eye contact	<ul> <li>Adverse symptoms may pain watering redness</li> <li>Adverse symptoms may respiratory tract irritation coughing wheezing and breathing</li> </ul>	include the foll include the foll difficulties	lowing	:	
Eye contact Inhalation	<ul> <li>Adverse symptoms may pain watering redness</li> <li>Adverse symptoms may respiratory tract irritation coughing wheezing and breathing asthma</li> <li>Adverse symptoms may pain or irritation redness dryness cracking</li> </ul>	include the foll include the foll difficulties include the foll	lowing lowing	: :	
Eye contact Inhalation Skin contact Ingestion Delayed and immediate effe	<ul> <li>Adverse symptoms may pain watering redness</li> <li>Adverse symptoms may respiratory tract irritation coughing wheezing and breathing asthma</li> <li>Adverse symptoms may pain or irritation redness dryness cracking blistering may occur</li> <li>Adverse symptoms may</li> </ul>	include the foll include the foll difficulties include the foll	lowing lowing owing	к к :	ure
Eye contact Inhalation Skin contact Ingestion	<ul> <li>Adverse symptoms may pain watering redness</li> <li>Adverse symptoms may respiratory tract irritation coughing wheezing and breathing asthma</li> <li>Adverse symptoms may pain or irritation redness dryness cracking blistering may occur</li> <li>Adverse symptoms may stomach pains</li> </ul>	include the foll include the foll difficulties include the foll	lowing lowing owing	к к :	ure

## Section 11. Toxicological information

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 ef	f <u>ects</u>
General	<ul> <li>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.</li> </ul>
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	3935.36 mg/kg
Dermal	2541.74 mg/kg
Inhalation (vapors)	17.76 mg/l
Inhalation (dusts and mists)	1.93 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. 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
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/I Fresh water	Daphnia	48 hours
-	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2,4,6-tris	Acute LC50 >100 mg/l	Daphnia	48 hours
(dimethylaminomethyl)phenol			
	Acute LC50 >100 mg/l	Fish	96 hours
Fatty acids, C18-unsatd.,	EC10 1.78 mg/l	Algae	72 hours
dimers, oligomeric reaction			
products with tall-oil fatty			
acids and			
triethylenetetramine			

#### Persistence/degradability

# Section 12. Ecological information

Product/ingredient name	Test	Result		Dose	Inoculum
ethylbenzene 2,4,6-tris (dimethylaminomethyl)phenol	- OECD 301D Ready Biodegradability - Closed Bottle Test	79 % - Readily - 10 4 % - Not readily - 2		-	-
Product/ingredient name	Aquatic half-life		Photolysi	s	Biodegradability
xylene benzyl alcohol ethylbenzene 2,4,6-tris (dimethylaminomethyl)phenol Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	-		-		Readily Readily Readily Not readily Not readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
1-methoxy-2-propanol	<1	-	Low
benzyl alcohol	0.87	-	Low
ethylbenzene	3.6	79.43	Low
2,4,6-tris	0.219	-	Low
(dimethylaminomethyl)phenol			
ethylenediamine	-2.04	-	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

	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
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### Section 13. Disposal considerations

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	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.	(Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol)	Not applicable.

#### Additional information

UN	: This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in
	packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2
	and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5.2.

- IMDG : This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5.
- : The environmentally hazardous substance mark may appear if required by other transportation ΙΑΤΑ 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

: No known specific national and/or regional regulations applicable to this product Safety, health and (including its ingredients). environmental regulations specific for the product

: Not determined

#### Law No. 74/2001 - Banned

None of the components are listed.

#### Law No. 74/2001 - Restricted

None of the components are listed.

Law No. 74/2001 -Chemicals that may be used

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# 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	: 6 September 2024
Date of previous issue	: 7/29/2024
Version	: 1.15
Prepared by	: EHS
Key to abbreviations	<ul> <li>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</li> </ul>

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

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