# SAFETY DATA SHEET

Date of issue: 8 May 2024

Version : 6



### **Section 1. Identification**

Product code : 40278-BHARD/5L

Product name : SIGMAFAST 278 HARDENER

Product type : Liquid.

Recommended use and restrictions

Use of the substance/ : Coating.

mixture

J

Uses advised against : Not applicable.

Supplier's details : PPG INDUSTRIES NEW ZEALAND LTD

5 MONAHAN ROAD, MT WELLINGTON,

AUCKLAND www.ppgnz.co.nz

Telephone Numbers: 09 573 1620, 0800 659378 021 940 920 (24 Hours)

Emergency telephone number (with hours of

operation)

: New Zealand 0800 000 096 (24 hours) / Australia 1800 883 254 (24 hours)

For international shipping emergencies: 1-412-391-1618

e-mail address of person responsible for this SDS

: ehsnz@ppg.com

### Section 2. Hazards identification

HSNO Classification : FLAMMABLE LIQUIDS - Category 3

ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1

**RESPIRATORY SENSITISATION - Category 1** 

SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 2

REPRODUCTIVE TOXICITY - Category 2

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Symbol :











**GHS label elements** 

Signal word : Danger

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Product code 40278-BHARD/5L

**Product name SIGMAFAST 278 HARDENER** 

### Section 2. Hazards identification

**Hazard statements** 

: Mammable liquid and vapour.

Harmful if swallowed. Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

**Precautionary statements** 

**Prevention** 

: Do not handle until all safety precautions have been read and understood. 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. Avoid release to the environment. Do not breathe vapour. Wash thoroughly after handling.

Response

: Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. Take off contaminated clothing and wash it before reuse. 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** 

: Not applicable.

**Disposal** 

: Dispose of contents and container in accordance with all local, regional, national

and international regulations.

result in classification

Other hazards which do not : Prolonged or repeated contact may dry skin and cause irritation.

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and has been classified according to the Hazardous Substances (Classifications) Notice 2017.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Land Transport Rule: Dangerous Goods 2005.

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture

**CAS** number/other identifiers

**Product code** : 40278-BHARD/5L

Hazardous ingredients	%	CAS number
<b>x</b> ylene	10 - <30	1330-20-7
proprietary aralkylpolyamine	10 - <30	Not available.
1-methoxy-2-propanol	1 - <10	107-98-2
benzyl alcohol	1 - <10	100-51-6
ethylbenzene	1 - <10	100-41-4
2,4,6-tris(dimethylaminomethyl)phenol	1 - <10	90-72-2
Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol	1 - <10	445498-00-0
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil	1 - <10	68082-29-1
fatty acids and triethylenetetramine		
3,6-diazaoctanethylenediamin	<1	112-24-3
ethylenediamine	<1	107-15-3
3-aminopropyldimethylamine	<1	109-55-7

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## 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 or have an OEL and hence require reporting in this section.

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 recognised skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show the container or label.

Keep person warm and at rest. Do NOT induce vomiting.

#### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

#### Over-exposure signs/symptoms

**Eyes** : Adverse symptoms may include the following:

pain watering redness

**Inhalation**: Adverse symptoms may include the following:

wheezing and breathing difficulties

asthma

reduced foetal weight increase in foetal deaths skeletal malformations

**Skin** : Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations

**Ingestion** : Adverse symptoms may include the following:

stomach pains

reduced foetal weight increase in foetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

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### Section 4. First aid measures

Specific treatments

: Not available.

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.

**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. Firefighting measures

#### **Extinguishing media**

Suitable

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Not suitable

: Do not use water jet.

Specific hazards arising from the chemical

: Flammable liquid and vapour. 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 precautions for firefighters : 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

: If specialised 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 spilt 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 material 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.

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### 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 the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour 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.

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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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## Section 8. Exposure controls/personal protection

#### **Control parameters**

Ingredient name	Exposure limits
▼ylene 1-methoxy-2-propanol	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 4/2022). [xylene (o-, m-, p-isomers)] Ototoxicant.  WES-TWA: 217 mg/m³ 8 hours. WES-TWA: 50 ppm 8 hours. HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 4/2022).  WES-STEL: 553 mg/m³ 15 minutes. WES-STEL: 150 ppm 15 minutes. WES-TWA: 369 mg/m³ 8 hours.

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## Section 8. Exposure controls/personal protection

wES-TWA: 100 ppm 8 hours.

ethylbenzene

HSWA 2015 - HSW (GRWM) 2016.

Workplace exposure standards (WES)

(New Zealand, 4/2022). Absorbed through

skin. Ototoxicant.

WES-STEL: 176 mg/m³ 15 minutes. WES-STEL: 40 ppm 15 minutes. WES-TWA: 88 mg/m³ 8 hours. WES-TWA: 20 ppm 8 hours.

wE5-TWA: 88 mg/m<sup>-</sup> 8 nours.
WES-TWA: 20 ppm 8 hours.
ethylenediamine
HSWA 2015 - HSW (GRWM) 2016.

Workplace exposure standards (WES) (New Zealand, 4/2022). Absorbed through skin. Skin sensitiser. Inhalation sensitiser.

WES-TWA: 25 mg/m<sup>3</sup> 8 hours. WES-TWA: 10 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 controls also need to keep gas, vapour 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**

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.

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.

**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

**Eye protection** : Chemical splash goggles and face shield.

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### Section 8. Exposure controls/personal protection

**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.

## Section 9. Physical and chemical properties

**Appearance** 

**Physical state**  Liquid. Colour : Clear. **Odour** : Aromatic. **Odour threshold** Not available. Hq : Not applicable. : Not available. **Melting point** : >37.78°C (>100°F) **Boiling point** 

: Closed cup: 29°C (84.2°F) Flash point

Flammability (solid, gas) Lower and upper explosive (flammable) limits

: Not available. : Not available.

Vapour pressure : Not available.

0.97 Relative density : 0.97 Bulk Density (g/cm³)

Solubility(ies)

**Viscosity** 

Result Media

cold water Not soluble

Partition coefficient: noctanol/water

: Not applicable.

**Auto-ignition temperature** 

: Not available. : Not available.

**Decomposition temperature** 

: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

**Viscosity** : 60 - 100 s (ISO 6mm)

## Section 10. Stability and reactivity

**Stability** 

: Stable under recommended storage and handling conditions (see Section 7).

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

: Reactive or incompatible with the following materials:

oxidising materials strong acids strong alkalis

**Hazardous decomposition** 

products

Depending on conditions, decomposition products may include the following

materials: carbon oxides nitrogen oxides

**Hazardous polymerisation** 

: Under normal conditions of storage and use, hazardous polymerisation will not

occur.

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**Product name SIGMAFAST 278 HARDENER** 

## **Section 11. Toxicological information**

#### Information on likely routes of exposure

Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion : Farmful if swallowed.

**Skin contact**: Zauses skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Eye contact** : Causes serious eye damage.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : Adverse symptoms may include the following:

wheezing and breathing difficulties

asthma

reduced foetal weight increase in foetal deaths skeletal malformations

**Ingestion**: Adverse symptoms may include the following:

stomach pains reduced foetal weight increase in foetal deaths

skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### **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 Vapour	Rat	>7000 ppm	6 hours
	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 Vapour	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	Rabbit	1.28 g/kg	-
(dimethylaminomethyl)				
phenol				
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
Fatty acids, C18-unsatd.,	LD50 Dermal	Rat	>2000 mg/kg	-
dimers, oligomeric reaction				

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# **Section 11. Toxicological information**

products with tall-oil fatty				
acids and				
triethylenetetramine				
	LD50 Oral	Rat	>2000 mg/kg	-
3,6-diazaoctanethylenediamin	LD50 Dermal	Rabbit	1465 mg/kg	-
	LD50 Oral	Rat	1716 mg/kg	-
ethylenediamine	LD50 Dermal	Rabbit	0.73 g/kg	-
	LD50 Oral	Rat	0.5 g/kg	-
3-aminopropyldimethylamine	LD50 Dermal	Rabbit	>1000 mg/kg	-
	LD50 Oral	Rat	410 mg/kg	-

**Conclusion/Summary** 

: There are no data available on the mixture itself.

#### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>x</b> ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2,4,6-tris (dimethylaminomethyl) phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Eyes - Severe irritant	Rabbit	-	-	-
•	Skin - Irritant	Human	-	-	-

#### Conclusion/Summary

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.

#### Sensitisation

• • • • • • • • • • • • • • • • • • • •	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	Mouse	Sensitising
3,6-diazaoctanethylenediamin	skin	Guinea pig	Sensitising

#### **Conclusion/Summary**

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

### Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. 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.

Inhalation : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

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**Product name SIGMAFAST 278 HARDENER** 

### Section 11. Toxicological information

**Skin contact** : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of

exposure.

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects**: No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

**Chronic toxicity** 

Not available.

**Carcinogenicity** 

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

**Mutagenicity** 

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

**Teratogenicity** 

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

**Reproductive toxicity** 

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

Specific target organ toxicity

Name	3 3 3	Route of exposure	Target organs
<b>x</b> ylene	Category 2	-	-
ethylbenzene	Category 2	-	-
3,6-diazaoctanethylenediamin	Category 1	-	-

#### **Aspiration hazard**

Name	
efhylbenzene	

### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Route	ATE value
<b>Ø</b> ral	1542.09 mg/kg
Dermal	4504.05 mg/kg
Inhalation (vapours)	281.6 mg/l
Inhalation (dusts and mists)	19.46 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 vapour/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.

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# **Section 12. Ecological information**

**Ecotoxicity Aquatic and terrestrial toxicity** 

: This material is toxic to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
<b>1</b> -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/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2,4,6-tris	Acute LC50 175 mg/l	Fish	96 hours
(dimethylaminomethyl)phenol			
Fatty acids, C18-unsatd.,	EC10 1.78 mg/l	Algae	72 hours
dimers, oligomeric reaction			
products with tall-oil fatty			
acids and			
triethylenetetramine			
3-aminopropyldimethylamine	Acute LC50 122 mg/l	Fish	96 hours

#### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>e</b> thylbenzene	-	79 % - Readily - 10 days	-	-
3-aminopropyldimethylamine	OECD 301D	69 % - Readily - 20 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>x</b> ylene	-	-	Readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily
Fatty acids, C18-unsatd.,	-	-	Not readily
dimers, oligomeric reaction			-
products with tall-oil fatty			
acids and			
triethylenetetramine			
3-aminopropyldimethylamine	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
<b>x</b> ylene	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			
3,6-diazaoctanethylenediamin	-1.66 to -1.4	-	Low
ethylenediamine	-2.04	-	Low
3-aminopropyldimethylamine	-0.352	-	Low

#### **Mobility in soil**

Soil/water partition : Not available. coefficient (Koc)

: No known significant effects or critical hazards. Other adverse effects

Do not allow to enter drains or watercourses.

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## Section 13. Disposal considerations

**Disposal methods** 

The generation of waste should be avoided or minimised 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

**Not suitable:** : Do not allow to enter drains or watercourses.

The classification of the product may meet the criteria for a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

## 14. Transport information

	NZ	IMDG	IATA		
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		
	RAMMARE VIOLENTIAL CONTROL OF THE PROPERTY OF				
Packing group	III	III	III		
Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.		
Marine pollutant substances	Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol)	Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol)	Not applicable.		

#### **Additional information**

NZ: The marine pollutant mark is not required when transported by road or rail.

Hazchem code : •3Y

**IMDG**: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

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### 14. Transport information

**IATA** 

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

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

the event of an accident or spillage.

Transport in bulk according : Not applicable.

to IMO instruments

### Section 15. Regulatory information

**New Zealand Inventory of** Chemicals (NZIoC)

: All components are listed or exempted.

**HSNO Approval Number** 

: HSR002669 Flammable, Toxic [6.7]

**Emergency Management** Regulations

: Level 1: Labelling required when 1L is present in a workplace.

Level 2: MSDS required when any amount is present in a workplace. At least 2 x 4.5 kg powder fire extinguishers required when 500L is present in a workplace.

Level 3: Emergency Response Plans and Secondary Containment required when

1000L is stored.

Flammable Signage required when 1000L is present in a workplace. Toxic Signage required when 10000L is present in a workplace. Corrosive Signage required when 1000L is present in a workplace.

Classes 1 to 5 Control Regulations

: Hazardous Atmosphere Zones required for quantities greater than:

100L (closed), 25L (decanting), 5L (open occasionally), 1L (open continuously). Hazardous Substances Location Certificate required for quantities greater than: 1500L (containers up to 5L), 500L (containers >5L), 250L (open containers).

**Approved Handler** 

: Not applicable.

**International regulations** 

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

**Montreal Protocol** 

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)** 

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

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**Product name SIGMAFAST 278 HARDENER** 

### Section 16. Other information

Date of issue : 8 May 2024

Date of previous issue : 11/8/2021

▼ Indicates information that has changed from previously issued version.

**Key to abbreviations** : STEL = Short Term Exposure Limit

TWA = Time-Weighted Average WES = Work Exposure Standard

References : Not available.

Organisation that prepared : EHS

the SDS

#### **Disclaimer**

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.

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