# SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2015.

Date of issue/Date of revision 29 August 2024

Version 3.01

### **Section 1. Identification**

Product name : SIGMAPRIME 200 HARDENER

Product code : 00445349

Other means of : Not available.

identification

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against : Not applicable.

Supplier : PPG Architectural Coatings Canada, Inc.

1550, rue Ampère, bureau 500 Boucherville (Québec) J4B 7L4

Canada

+1 450-655-3121

PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272 : (412) 434-4515 (U.S.)

**Emergency telephone** 

<u>number</u>

(514) 645-1320 (Canada)

SETIQ Interior de la República: 800-00-214-00 (México) SETIQ Ciudad de México: (55) 5559-1588 (México)

**Technical Phone Number**: 888-977-4762

### Section 2. Hazard identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 2

ACUTE TOXICITY (inhalation) - Category 4

SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Health Hazards Not Otherwise Classified - Category 1

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#### **Product name SIGMAPRIME 200 HARDENER**

### Section 2. Hazard identification

#### **GHS label elements**

**Hazard pictograms** 









Signal word

**Hazard statements** 

: Danger

: Highly flammable liquid and vapor.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Harmful if inhaled.

May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure. (hearing

organs)

Causes digestive tract burns.

Prolonged or repeated contact may dry skin and cause irritation.

#### **Precautionary statements**

**Prevention** 

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: 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 Disposal

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Supplemental label elements

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- : Do not taste or swallow. 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. Wash thoroughly after handling. Emits toxic fumes when heated.

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 47.8%

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#### **Product code 00445349**

**Product name SIGMAPRIME 200 HARDENER** 

# Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

**Product name** 

: SIGMAPRIME 200 HARDENER

Other means of identification

: Not available.

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

Ingredient name	Synonyms	% (w/w)	CAS number
xylene	Benzene, dimethyl-; Xylol; Benzene, dimethyl-, mixed isomers; xylene, mixed isomers, pure; xylene, crude; Benzene, dimethyl-,; Xylene (mixed); xylene (total); Xylenes; Dimethylbenzene; XYLENES (Isomer Mixture)	10 - 30*	1330-20-7
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine; Fatty acids, C18-unsaturated, dimers, polymers with tall oil fatty acids and triethylenetetramine; (C36) Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer; Dimer fatty acids, tall oil fatty acids, triethylenetetramine polymer; Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine; Triethylenetetramine, dimer fatty acids, tall oil fatty acids polymer; Dimer acid, triethylenetetramine, tall oil fatty acids polymer; C18-Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer; C18-Fatty acid dimer, tall oil fatty acid, triethylenetetramine polyamide	10 - 30*	68082-29-1
2-methylpropan-1-ol	iso-butanol; 1-Propanol, 2-methyl-; Isobutyl alcohol; Isobutanol; 2-Methyl- 1-propanol; Isopropylcarbinol; IBA; i-Butyl alcohol; isobutanol; iso-butanol; Isobutyl alcohol (I,T); 1-Propanol, 2-methyl- (I,T)	10 - 30*	78-83-1
Epoxy Resin (700 <mw<=1100)< td=""><td>phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bis[oxirane] (700<mw<=1100)< td=""><td>10 - 30*</td><td>25036-25-3</td></mw<=1100)<></td></mw<=1100)<>	phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bis[oxirane] (700 <mw<=1100)< td=""><td>10 - 30*</td><td>25036-25-3</td></mw<=1100)<>	10 - 30*	25036-25-3
2,4,6-tris(dimethylaminomethyl)phenol	Phenol, 2,4,6-tris[(dimethylamino)methyl]-; Phenol, 2,4,6-tris(dimethylaminomethyl)-; 2,4,6-tris((dimethylamino)methyl)phenol; Phenol, 2,4,6-tris{(dimethylamino)methyl]-; 2,4,6-Tris[(dimethylamino)methyl]phenol; 2,4,6-Tris(N,N-dimethylaminomethyl) phenol; 2,4,6-Tridimethylaminomethyl) phenol; 2,4,6-Tridimethylaminomethylphenol; TRIS	1 - 5*	90-72-2

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# Section 3. Composition/information on ingredients

	(2,4,6-DIMETHYLAMINOMONOMETHYL) PHENOL; TRIS (2,4,6-DIMETHYLAMINOMETHYL) PHENOL; TRIS[(DIMETHYLAMINO) METHYL]PHENOL, 2,4,6-		
ethylbenzene	Benzene, ethyl-; Phenylethane; Ethylbenzol; photosensitive emulsion consisting of cyclized polyisoprene containing: — 55 % or more but not more than 75 % by weight of xylene (CAS RN 1330-20-7) and — 12 % or more but not more than 18 % by weight of ethylbenzene (CAS RN 100-41-4); EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropyloxycarbonyl orchloropropyloxycarbonyl) benzene	1 - 5*	100-41-4
3,6-diazaoctanethylenediamin	triethylenetetramine; trientine; 1,2-Ethanediamine, N1,N2-bis (2-aminoethyl)-; 1,2-Ethanediamine, N,N'- bis(2-aminoethyl)-; N,N'-Bis(2-aminoethyl) -1,2-ethanediamine; 3,6-diazaoctamethylenediamine; N,N'-bis (2-aminoethyl)ethane-1,2-diamine; N1, N2-bis(2-Aminoethyl)-1,2-ethanediamine; 1,4,7,10-Tetraazadecane; 3,6-Diazaoctane-1,8-diamine; N,N'-Bis (2-aminoethyl)ethylenediamine	1 - 5*	112-24-3
toluene	Benzene, methyl-; Methylbenzene; Toluol; Phenyl methane; Methyl benzol; toluene, pure; toluene, crude; antisal 1A; benzene, methyl-; CP-25; methane, phenyl-; methylbenzene; methylbenzol; NCI-CO7272; phenyl methane; RCRA waste number U220; toluol; tolu-sol; methacide; 1-methylbenzene; methacide; Cuminyl alcohol; Cuminol	0.1 - 1*	108-88-3

<sup>\*</sup>Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

SUB codes represent substances without registered CAS Numbers.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

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**Product name SIGMAPRIME 200 HARDENER** 

### Section 4. First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

#### **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

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

Inhalation : Harmful if inhaled. Can cause central nervous system (CNS) depression. May

cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact**: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Corrosive to the digestive tract. Causes burns. Can cause central nervous system

(CNS) depression.

#### 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

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

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

pain or irritation

redness dryness cracking

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

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#### **Product name SIGMAPRIME 200 HARDENER**

### Section 4. First-aid measures

Ingestion

 Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

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

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** 

: No specific treatment.

**Protection of first-aiders** 

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

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing

media

media

Unsuitable extinguishing

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

: Do not use water jet.

nitrogen oxides

Specific hazards arising from the chemical

: Highly 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.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon 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.

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### Section 6. Accidental release measures

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).

#### 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 sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

#### Precautions for safe handling

#### **Protective measures**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 vapor or mist. Do not ingest. 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.

#### **Special precautions**

: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

#### **Advice on general** occupational hygiene

Wash hands thoroughly after handling.

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### Section 7. Handling and storage

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.

including any incompatibilities

Conditions for safe storage, : 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.

### Section 8. Exposure controls/personal protection

#### **Control parameters**

Occupational exposure limits

Ingredient name	Exposure limits
xylene	CA Alberta Provincial (Canada, 3/2023).  [Dimethylbenzene]  OEL: 651 mg/m³ 15 minutes.  OEL: 150 ppm 15 minutes.  OEL: 434 mg/m³ 8 hours.  OEL: 100 ppm 8 hours.  CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)]  STEL: 150 ppm 15 minutes.  TWA: 100 ppm 8 hours.  CA Quebec Provincial (Canada, 7/2023).  [Xylene]  STEV: 651 mg/m³ 15 minutes.  STEV: 150 ppm 15 minutes.  TWAEV: 434 mg/m³ 8 hours.  TWAEV: 400 ppm 8 hours.  CA Ontario Provincial (Canada, 6/2019).  [Xylene (o-, m-, p-isomers)]  STEL: 150 ppm 15 minutes.  TWA: 100 ppm 8 hours.  CA Saskatchewan Provincial (Canada, 7/2013). [Xylene]  STEL: 150 ppm 15 minutes.  TWA: 100 ppm 8 hours.
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 2-methylpropan-1-ol	None.  CA Alberta Provincial (Canada, 3/2023). Skin sensitizer. OEL: 152 mg/m³ 8 hours. OEL: 50 ppm 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 50 ppm 8 hours.

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Epoxy Resin (700<MW<=1100)

3,6-diazaoctanethylenediamin

toluene

ethylbenzene

2,4,6-tris(dimethylaminomethyl)phenol

**Product name SIGMAPRIME 200 HARDENER** 

### Section 8. Exposure controls/personal protection

CA Ontario Provincial (Canada, 6/2019).

TWA: 50 ppm 8 hours.

CA Quebec Provincial (Canada, 7/2023).

TWAEV: 152 mg/m<sup>3</sup> 8 hours. TWAEV: 50 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.

None.

CA Alberta Provincial (Canada, 3/2023).

OEL: 543 mg/m<sup>3</sup> 15 minutes. OEL: 125 ppm 15 minutes. OEL: 434 mg/m<sup>3</sup> 8 hours. OEL: 100 ppm 8 hours.

CA British Columbia Provincial (Canada, 8/2023).

TWA: 20 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 20 ppm 8 hours.

CA Quebec Provincial (Canada, 7/2023).

TWAEV: 20 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.

TWA: 3 mg/m<sup>3</sup> 8 hours. TWA: 0.5 ppm 8 hours.

CA Alberta Provincial (Canada, 3/2023).

Absorbed through skin. OEL: 188 mg/m<sup>3</sup> 8 hours. OEL: 50 ppm 8 hours.

CA British Columbia Provincial (Canada, 8/2023).

TWA: 20 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 20 ppm 8 hours.

CA Quebec Provincial (Canada, 7/2023).

TWAEV: 20 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.

STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.

#### Consult local authorities for acceptable exposure limits.

procedures

**Recommended monitoring**: 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.

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### Section 8. Exposure controls/personal protection

# 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**

**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 Skin protection

**Hand protection** 

: Chemical splash goggles and face shield.

: 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

: nitrile neoprene

**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 : Clear.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

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#### **Product name SIGMAPRIME 200 HARDENER**

### Section 9. Physical and chemical properties

: Closed cup: 22°C (71.6°F) **Flash point** 

**Auto-ignition temperature** : Not available. **Decomposition temperature** : Not available. **Flammability** : Not available. : Not available.

Lower and upper explosive

(flammable) limits

: Not available.

**Evaporation rate** Vapor pressure : Not available. Vapor density : Not available.

**Relative density** : 0.92 Density (lbs/gal) 7.68 Bulk Density (g/cm³) : 0.923

Media Result Solubility(ies)

cold water Not soluble

Partition coefficient: n-

octanol/water

: Not applicable.

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

**Volatility** : 56% (v/v), 51.675% (w/w)

% Solid. (w/w) : 48.325

### Section 10. Stability and reactivity

: No specific test data related to reactivity available for this product or its ingredients. Reactivity

**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.

Refer to protective measures listed in sections 7 and 8.

**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** 

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# Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Fatty acids, C18-unsatd.,	LD50 Dermal	Rat	>2000 mg/kg	-
dimers, oligomeric reaction				
products with tall-oil fatty				
acids and				
triethylenetetramine				
	LD50 Oral	Rat	>2000 mg/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	-
Epoxy Resin (700 <mw< td=""><td>LD50 Dermal</td><td>Rat</td><td>&gt;2000 mg/kg</td><td>-</td></mw<>	LD50 Dermal	Rat	>2000 mg/kg	-
<=1100)	L D50 0	D. 4		
0.4.0.4	LD50 Oral	Rat	>2000 mg/kg	-
2,4,6-tris	LD50 Dermal	Rat	1280 mg/kg	-
(dimethylaminomethyl)				
phenol	LD50 Oral	Rat	1200 ma/ka	
othylbonzono		Rat	1200 mg/kg 17.8 mg/l	4 hours
ethylbenzene	LC50 Inhalation Vapor LD50 Dermal	Rabbit	17.8 fflg/l	4 110urs
	LD50 Oral	Rat	3.5 g/kg	-
3,6-diazaoctanethylenediamin		Rabbit	1465 mg/kg	_
0,0 diazaodanemylenediamin	LD50 Oral	Rat	1716 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	_
	LD00 Olai	itut	Jood Hig/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

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

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

#### **Sensitization**

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

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#### **Product name SIGMAPRIME 200 HARDENER**

### **Section 11. Toxicological information**

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

**Mutagenicity** 

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

**Carcinogenicity** 

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

**Classification** 

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
ethylbenzene	-	2B	-
toluene	-	3	-

#### **Carcinogen Classification code:**

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

#### **Reproductive toxicity**

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

**Teratogenicity** 

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

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

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

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

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

#### **Target organs**

: Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, upper respiratory tract, skin, central nervous system (CNS), ears, eye, lens or cornea.

#### **Aspiration hazard**

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

#### Information on the likely routes of exposure

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#### **Product name SIGMAPRIME 200 HARDENER**

### **Section 11. Toxicological information**

#### Potential acute health effects

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

Inhalation : Harmful if inhaled. Can cause central nervous system (CNS) depression. May

cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact**: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Corrosive to the digestive tract. Causes burns. Can cause central nervous system

(CNS) depression.

#### **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

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

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

pain or irritation

redness dryness cracking

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

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

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

#### Delayed and immediate effects and also chronic effects from short and long term exposure

**Conclusion/Summary** 

There are no data available on the mixture itself. 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. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. 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

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### Section 11. Toxicological information

exposure and eye contact. 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.

#### **Short 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.

**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 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.

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

exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMAPRIME 200 HARDENER	2739.4	2211.3	N/A	21.1	2.7
xylene	4300	1700	N/A	11	1.5
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	2500	2500	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
Epoxy Resin (700 <mw<=1100)< td=""><td>2500</td><td>2500</td><td>N/A</td><td>N/A</td><td>N/A</td></mw<=1100)<>	2500	2500	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
3,6-diazaoctanethylenediamin	1716	1465	N/A	N/A	N/A
toluene	5580	8390	N/A	49	N/A

### **Section 12. Ecological information**

#### **Toxicity**

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#### **Product name SIGMAPRIME 200 HARDENER**

### Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	EC10 1.78 mg/l	Algae	72 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
2,4,6-tris	Acute LC50 >100 mg/l	Daphnia	48 hours
(dimethylaminomethyl)phenol		·	
	Acute LC50 >100 mg/l	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	-

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2,4,6-tris	OECD 301D	4 % - Not readily - 28 days	-	-
(dimethylaminomethyl)phenol	Ready			
	Biodegradability -			
	Closed Bottle			
	Test			
ethylbenzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
Fatty acids, C18-unsatd.,	-	-	Not readily
dimers, oligomeric reaction			
products with tall-oil fatty			
acids and			
triethylenetetramine			N - 4 126 -
2,4,6-tris	-	-	Not readily
(dimethylaminomethyl)phenol			Poodily
ethylbenzene toluene	-	-	Readily Readily
toluerie	-	<del>-</del>	Reaully

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
2-methylpropan-1-ol	1	-	Low
2,4,6-tris	0.219	-	Low
(dimethylaminomethyl)phenol			
ethylbenzene	3.6	79.43	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.

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Product code 00445349

**Product name SIGMAPRIME 200 HARDENER** 

### 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 nonrecyclable 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.

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

### **Section 14. Transport information**

	TDG	IMDG	IATA
UN number	UN3469	UN3469	UN3469
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
Transport hazard class (es)	3 (8)	3 (8)	3 (8)
Packing group	II	II	II
<b>Environmental hazards</b>	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

#### **Additional information**

**TDG** : 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.

Transport in bulk according: Not applicable.

to IMO instruments

**Proof of classification** statement

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.40-2.42 (Class 8).

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**Product name SIGMAPRIME 200 HARDENER** 

### Section 15. Regulatory information

**National Inventory List** 

**Canada inventory ( DSL )** : All components are listed or exempted.

### Section 16. Other information

**Hazardous Material Information System (U.S.A.)** 

Health: 3 \* Flammability: 3 Physical hazards: 0

(\*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

**National Fire Protection Association (U.S.A.)** 

Health: 3 Flammability: 3 Instability: 0

Date of issue/Date of 29 August 2024

revision

Organization that prepared : EHS

the SDS

**Key to abbreviations** : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available SGG = Segregation Group UN = United Nations

Indicates information that has changed from previously issued version.

#### **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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