# SAFETY DATA SHEET

#### **SIGMAZINC 100 HARDENER**



Date of issue 14 May 2024

Version 24

# 1. Product and company identification

Product name : SIGMAZINC 100 HARDENER

Product code : 00251783 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's details : PPG PMC Japan Co., Ltd., 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe

652-0803 Japan; Tel: +81-78-574-2777

**Emergency telephone** 

number

: 078 574 2777

# 2. Hazards identification

GHS Classification : FLAMMABLE LIQUIDS - Category 3

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
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 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 1

HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -

Category 2

**GHS label elements** 

Hazard pictograms :











Signal word : Danger

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**Product name SIGMAZINC 100 HARDENER** 

## 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 respiratory irritation. May cause drowsiness or dizziness.

Suspected of causing cancer.

May damage fertility or the unborn child.

Causes damage to organs. (central nervous system (CNS), kidneys, liver,

respiratory organs)

Causes damage to organs through prolonged or repeated exposure. (hearing

organs, nervous system, respiratory organs)

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

#### **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. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. 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 Disposal**

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

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

result in classification

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

# 3. Composition/information on ingredients

Substance/mixture : Mixture

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

**CAS** number : Not applicable. **CSCL** number : Not available.

Ingredient name	%	CAS number	CSCL
Tatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	25 - <50	68410-23-1	7-445
Ethyl Benzene	25 - <50	100-41-4	3-28; 3-60
Xylene	15 - <20	1330-20-7	3-3; 3-60
Propylene glycol monomethyl ether	3 - <5	107-98-2	2-404; 7-97
isobutyl alcohol	3 - <5	78-83-1	2-3049
2,4,6-Tris(dimethylaminomethyl)phenol	1 - <2	90-72-2	3-714; 3-762; 3-776
3,6-diazaoctanethylenediamin	1 - <2	112-24-3	2-163; 7-5

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**Product name SIGMAZINC 100 HARDENER** 

# 3. Composition/information on ingredients

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

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

SUB codes represent substances without registered CAS Numbers.

### 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

**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 damage to organs following a single exposure in contact with skin. Causes

skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Corrosive to the digestive tract. Causes burns. Causes damage to organs following

a single exposure if swallowed. 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 SIGMAZINC 100 HARDENER** 

## 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)

# 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 very toxic to aquatic life. 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 : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# 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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# 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

#### 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.

# 7. Handling and storage

#### **Precautions for safe** handling

: 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. 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: 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.

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# 8. Exposure controls/personal protection

#### **Control parameters**

**Occupational exposure limits** 

Ingredient name	Exposure limits	
Ethyl Benzene	Japan Society for Occupational Health (Japan, 5/2023). Absorbed through skin.  OEL-M: 87 mg/m³ 8 hours.  OEL-M: 20 ppm 8 hours.  Industrial Safety and Health Act (Japan, 6/2020).  TWA: 20 ppm 8 hours.	
Xylene	Industrial Safety and Health Act (Japan, 6/2020). [xylene]  TWA: 50 ppm 8 hours.  Japan Society for Occupational Health (Japan, 5/2023).  OEL-M: 50 ppm 8 hours.  OEL-M: 217 mg/m³ 8 hours.	
isobutyl alcohol	Japan Society for Occupational Health (Japan, 5/2023).  OEL-M: 150 mg/m³ 8 hours.  OEL-M: 50 ppm 8 hours.  Industrial Safety and Health Act (Japan 6/2020).  TWA: 50 ppm 8 hours.	

# 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.

#### **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 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

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# 8. Exposure controls/personal protection

estimated.

: butvl rubber **Gloves** 

: Personal protective equipment for the body should be selected based on the task **Body protection** 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.

: Appropriate footwear and any additional skin protection measures should be Other skin protection

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

: Respirator selection must be based on known or anticipated exposure levels, the Respiratory protection

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.

# 9. Physical and chemical properties

**Appearance** 

**Physical state** : Liquid. Color : Colorless. Odor : Aromatic.

: >37.78°C (>100°F) **Boiling point** 

: Closed cup: 26°C (78.8°F) Flash point

**Relative density** : 0.91

Media Result Solubility(ies)

cold water Not soluble

# 10. Stability and reactivity

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

**Chemical stability** : The product is stable.

Possibility of hazardous

reactions

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

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition

products.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition** 

products

: Evolves hydrogen on contact with water. Depending on conditions, decomposition

products may include the following materials: carbon oxides nitrogen oxides

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# 11. Toxicological information

### Information on toxicological effects

#### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
<b>E</b> thyl Benzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
Xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Propylene glycol	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
monomethyl ether				
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
isobutyl alcohol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
-	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/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	-
3,6-diazaoctanethylenediamin	LD50 Dermal	Rabbit	1465 mg/kg	-
	LD50 Oral	Rat	1716 mg/kg	-

#### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2,4,6-Tris (dimethylaminomethyl) phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days

#### **Sensitization**

•	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	skin	Mouse	Sensitizing
3,6-diazaoctanethylenediamin		Guinea pig	Sensitizing

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

Specific target organ toxicity (single exposure)

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**Product name SIGMAZINC 100 HARDENER** 

# 11. Toxicological information

Name	Category	Route of exposure	Target organs
€thyl Benzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Xylene	Category 1	-	central nervous system (CNS), kidneys, liver, respiratory organs
	Category 3		Narcotic effects
Propylene glycol monomethyl ether	Category 3	-	Narcotic effects
isobutyl alcohol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
3,6-diazaoctanethylenediamin	Category 3	-	Respiratory tract irritation

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

Name		Route of exposure	Target organs
Ethyl Benzene	Category 1	-	hearing organs, nervous system
Xylene	Category 1	-	nervous system, respiratory organs

#### **Aspiration hazard**

Name	Result
Ethyl Benzene	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

: Not available.

#### 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 damage to organs following a single exposure in contact with skin. Causes

skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Corrosive to the digestive tract. Causes burns. Causes damage to organs following

a single exposure if swallowed. Can cause central nervous system (CNS)

depression.

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

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

pain watering redness

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

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo

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**Product name SIGMAZINC 100 HARDENER** 

# 11. Toxicological information

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

**Short term exposure** 

Potential immediate : N

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : Causes 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**: May damage 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)
MGMAZINC 100 HARDENER	39700.2	3869.6	N/A	14.6	N/A
Ethyl Benzene	3500	17800	N/A	17.8	N/A
Xylene	4300	1700	N/A	11	N/A
Propylene glycol monomethyl ether	5200	13000	N/A	11	N/A
isobutyl alcohol	2830	2460	N/A	11	N/A
2,4,6-Tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A
3,6-diazaoctanethylenediamin	N/A	300	N/A	N/A	N/A

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# 11. Toxicological information

#### Other information

Causes digestive tract burns. 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.

# 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	EC50 4.11 mg/l Fresh water	Algae	72 hours
Ethyl Benzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	48 hours
Propylene glycol monomethyl ether	Acute LC50 23300 mg/l	Daphnia	48 hours
•	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
isobutyl alcohol	Acute EC50 1100 mg/l	Daphnia	48 hours
2,4,6-Tris (dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours

#### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Tatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	-	15 % - 28 days	-	-
Ethyl Benzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Fatty acids, C18-unsatd.,	-	-	Not readily
dimers, reaction products with polyethylenepolyamines			
Ethyl Benzene	-	-	Readily
Xylene	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
<b>E</b> thyl Benzene	3.6	79.43	Low
Xylene	3.12	7.4 to 18.5	Low
Propylene glycol	<1	-	Low
monomethyl ether			
isobutyl alcohol	1	-	Low
2,4,6-Tris	0.219	-	Low
(dimethylaminomethyl)phenol			
3,6-diazaoctanethylenediamin	-1.66 to -1.4	-	Low

#### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

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

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# 12. Ecological information

# 13. Disposal considerations

**Disposal methods** 

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# 14. Transport information

	UN	IMDG	IATA
UN number	VN1263	VN1263	VN1263
UN proper shipping name	PAINT	PAINT	PAINT
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.	(Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines)	Not applicable.

#### Additional information

UN : None identified.

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

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

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**Product name SIGMAZINC 100 HARDENER** 

# 15. Regulatory information

#### **Fire Service Law**

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class II petroleums	III	Flammable - Keep Fire Away	1000 L

#### Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
Ethylbenzene	32	Class 1	53
Xylene	19	Class 1	80
Triethylenetetramine	1.1	Class 2	278

#### **Industrial Safety and Health Act**

#### Ordinance on the Prevention of the Hazard due to Specified Chemical Substances

Ingredient name	%		Reference number
ethyl benzene	≥30 - ≤40	Special Organic Solvents	3-3

#### Substance(s) requiring labelling

Ingredient name	%	Status	Reference number
<b>E</b> thylbenzene	≥30 - ≤40	Listed	70
Xylene	≥10 - ≤20	Listed	136
Propylene glycol monomethyl ether	≤10	Listed	496
Butanol	≤10	Listed	477

#### **Chemicals requiring notification**

Ingredient name	%	Status	Reference number
Ethylbenzene Xylene Propylene glycol monomethyl ether Butanol	≥30 - ≤40	Listed	70
	≥10 - ≤20	Listed	136
	≤10	Listed	496
	≤10	Listed	477

#### Carcinogens based on Article 577-2 of the Ordinance on ISH

Mone of the components are listed.

#### **Mutagen**

None of the components are listed.

Corrosive liquid : Not listed

Occupational Safety and : Inflammable

**Health Law** 

Regulations on the Prevention of Tetraalkyl

**Lead Poisoning** 

Harmful Substances

Subject to Obtaining Permission for Manufacturing : Not listed

: Not listed

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**Product name SIGMAZINC 100 HARDENER** 

# 15. Regulatory information

Harmful Substances,

**Prohibited for Manufacturing**  : Not listed

: Inflammable

**ISHL Enforcement Order** 

**Appendix 1 - Dangerous** 

**Substances** 

Lead regulation : Not listed **Organic solvents** : Class 2

poisoning prevention

#### **Poisonous and Deleterious Substances**

None of the components are listed.

#### **Chemical Substances Control Law (CSCL)**

Ingredient name	%		Reference number
<b>E</b> thylbenzene	≥30 - ≤40	Priority assessment	50
Xylene	≥10 - ≤20	Priority assessment	125

: Not available. **High Pressure Gas Control** 

Law

#### **Explosives Control Law**

None of the components are listed.

Law concerning prevention : Not available.

of pollution of the ocean

#### **Maritime Safety Law**

#### Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

#### **Container class**

None of the components are listed.

**JSOH Carcinogen** : Group 2B **List of Specially Controlled** : Not listed

**Industrial Waste** 

**Japan inventory** : All components are listed or exempted.

**Road law** : Not available.

## 16. Other information

#### **History**

Date of issue/Date of : 14 May 2024

revision

Date of previous issue : 10/25/2023

**Version** : 24 : EHS Prepared by

Page: 14/15 **Japan** 

**Product name SIGMAZINC 100 HARDENER** 

## 16. Other information

Key to abbreviations

: ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

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

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

UN = United Nations

▼ Indicates information that has changed from previously issued version.

#### **Notice to reader**

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