# **SAFETY DATA SHEET**

#### **SIGMAZINC 158 BINDER**



Date of issue 8 October 2025

**Version 2** 

# 1. Product and company identification

Product name : SIGMAZINC 158 BINDER

Product code : 00482687 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 2

EYE IRRITATION - Category 2A

GERM CELL MUTAGENICITY - Category 2

CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2 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 2

HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -

Category 2

**GHS label elements** 

Hazard pictograms :









Signal word : Danger

**Hazard statements** : Highly flammable liquid and vapor.

Causes serious eye irritation. May cause drowsiness or dizziness.

Suspected of causing genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

respiratory organs, systemic toxicity, visual organ)

Japan Page: 1/16

# 2. Hazards identification

Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), hearing organs, immune system, kidneys, nervous system, respiratory organs, visual organ)

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.

#### 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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

# 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.

# Other hazards which do not result in classification

Other hazards which do not : 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
rystalline silica, non-respirable powder (>10 microns)	20 - <25	14808-60-7	1-548
Propylene glycol monomethyl ether	20 - <25	107-98-2	2-404; 7-97
Silicic acid, ethyl ester	20 - <25	11099-06-2	Not available.
Ethyl Benzene	12.5 - <15	100-41-4	3-28; 3-60
Xylene	7 - <10	1330-20-7	3-3; 3-60
Crystalline silica (quartz)	2 - <3	14808-60-7	1-548
Talc (containing no asbestos or quartz)	1 - <2	14807-96-6	Not available.
iron hydroxide oxide yellow	1 - <2	51274-00-1	Not available.
Methanol	1 - <2	67-56-1	2-201
Trimethyl borate	0.5 - <1	121-43-7	2-2101; 2-2114
Ethanol	0.2 - < 0.5	64-17-5	2-202
sulfuric acid	0.1 - < 0.2	7664-93-9	1-430
Zinc chloride	<0.1	7646-85-7	1-264

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.

Japan Page: 2/16

**Product name SIGMAZINC 158 BINDER** 

### 4. First aid measures

#### **Description of necessary first aid measures**

**Eye contact**: Remove contact lenses, irrigate copiously with clean, fresh water, holding the

eyelids apart for at least 10 minutes and seek immediate medical advice.

**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 irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

**Skin contact**: May cause damage to organs following a single exposure in contact with skin.

Defatting to the skin. May cause skin dryness and irritation.

**Ingestion**: May cause 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 or irritation watering redness

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

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:

irritation dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

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

reduced fetal weight increase in fetal deaths skeletal malformations

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

Japan Page: 3/16

Product code 00482687

Date of issue 8 October 2025

Version 2

**Product name SIGMAZINC 158 BINDER** 

### 4. First aid measures

**Protection of first-aiders** 

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

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

: 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. 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

metal oxide/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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Japan Page: 4/16

# 6. Accidental release measures

### **Small spill**

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

#### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with 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). 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 nonsparking 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.

# 8. Exposure controls/personal protection

**Control parameters** 

Occupational exposure limits

crystalline silica, non-respirable powder (>10 microns)

1-methoxy-2-propanol

ethylbenzene

**Japan Society for Occupational Health** (Japan, 5/2024) [Respirable crystalline silica]

OEL-C: 0.03 mg/m<sup>3</sup>. Form: Respirable particulate matter.

**Technical Guideline Concerning the** Applications, etc. of Concentration Standard for Preventing Health Hazards (Japan, 6/2024)

TWA 8 hours: 50 ppm.

Japan Society for Occupational Health (Japan, 5/2024) Absorbed through skin.

> Japan Page: 5/16

Product code 00482687

xylene

methanol

sulphuric acid

zinc chloride

Date of issue 8 October 2025

Version 2

**Product name SIGMAZINC 158 BINDER** 

crystalline silica, respirable powder (<10 microns)

Talc, not containing asbestiform fibres

# 8. Exposure controls/personal protection

OEL-M 8 hours: 20 ppm. OEL-M 8 hours: 87 mg/m<sup>3</sup>.

Industrial Safety and Health Act (Japan, 11/2024)

TWA 8 hours: 20 ppm.

**Japan Society for Occupational Health** (Japan, 5/2024)

OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 217 mg/m<sup>3</sup>.

Industrial Safety and Health Act (Japan, 11/2024) [xylene]

TWA 8 hours: 50 ppm.

Japan Society for Occupational Health (Japan, 5/2024) [Respirable crystalline

OEL-C: 0.03 mg/m<sup>3</sup>. Form: Respirable

particulate matter.

**Japan Society for Occupational Health** (Japan, 5/2024) [class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, pyrophylite, Pyrites, Pyrite cinder)]

OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).

OEL-M 8 hours: 0.5 mg/m<sup>3</sup>. Form: Respirable dust (Class 1 Dust).

**Japan Society for Occupational Health** (Japan, 5/2024) Absorbed through skin.

OEL-M 8 hours: 200 ppm. OEL-M 8 hours: 260 mg/m3.

Industrial Safety and Health Act (Japan,

11/2024)

TWA 8 hours: 200 ppm.

**Japan Society for Occupational Health** (Japan, 5/2024)

OEL-C: 1 mg/m<sup>3</sup>.

**Japan Society for Occupational Health** (Japan, 5/2024)

OEL-C: 4 mg/m<sup>3</sup>.

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**

Japan Page: 6/16 Product code 00482687

Date of issue 8 October 2025

Version 2

**Product name SIGMAZINC 158 BINDER** 

# 8. Exposure controls/personal protection

#### **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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

# Eye protection Skin protection

: Chemical splash goggles.

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** 

: For prolonged or repeated handling, use the following type of gloves:

Recommended: polyvinyl alcohol (PVA), Viton®, butyl rubber

May be used: nitrile rubber

**Body protection** 

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

# 9. Physical and chemical properties

**Appearance** 

Physical state : Liquid.
Odor : Aromatic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 20°C (68°F)

Relative density : 1.18

Solubility(ies) : Media Result

cold water Not soluble

Japan Page: 7/16

**Product name SIGMAZINC 158 BINDER** 

# 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 metal oxide/oxides

# 11. Toxicological information

### Information on toxicological effects

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Propylene glycol monomethyl ether	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
Silicic acid, ethyl ester	LD50 Oral	Rat	6270 mg/kg	-
Ethyl 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	-
iron hydroxide oxide yellow	LC50 Inhalation Dusts and mists	Rat	>5.05 mg/l	4 hours
	LD50 Oral	Rat	>10 g/kg	-
Methanol	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
Trimethyl borate	LD50 Dermal	Rabbit	1.98 g/kg	-
	LD50 Oral	Rat	6140 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	17100 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-
sulfuric acid	LD50 Oral	Rat	2140 mg/kg	-
Zinc chloride	LD50 Oral	Rat	0.35 g/kg	-

# **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
▼ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

#### **Sensitization**

Not available.

#### Mutagenicity

Not available.

Japan Page: 8/16

# 11. Toxicological information

# Carcinogenicity

Not available.

### **Reproductive toxicity**

Not available.

### **Teratogenicity**

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Propylene glycol monomethyl ether	Category 3	-	Narcotic effects
Ethyl 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
Talc (containing no asbestos or quartz)	Category 1	-	respiratory organs
Methanol	Category 1	-	central nervous system (CNS), systemic toxicity, visual organ
-	Category 3	-	Narcotic effects
Trimethyl borate	Category 3	-	Respiratory tract irritation
Ethanol	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
sulfuric acid	Category 1	-	respiratory organs
Zinc chloride	Category 1	-	respiratory organs

# Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Ethyl Benzene	Category 1	-	hearing organs, nervous system
Xylene	Category 1	-	nervous system, respiratory organs
Crystalline silica (quartz)	Category 1	-	immune system, kidneys, respiratory organs
Talc (containing no asbestos or quartz)	Category 1	-	respiratory organs
Methanol	Category 1	-	central nervous system (CNS), visual organ
Ethanol	Category 1	-	liver
-	Category 2	-	central nervous system (CNS)
sulfuric acid	Category 1	-	respiratory organs

### **Aspiration hazard**

Japan Page: 9/16

**Product name SIGMAZINC 158 BINDER** 

# 11. Toxicological information

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

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

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

**Skin contact**: May cause damage to organs following a single exposure in contact with skin.

Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : May cause 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 or irritation watering redness

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

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:

irritation dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

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

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

effects

: Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate : 1

effects

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Japan Page: 10/16

**Product name SIGMAZINC 158 BINDER** 

# 11. Toxicological information

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.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : Suspected of causing genetic defects.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)
SIGMAZINC 158 BINDER	46296.3	16900.0	N/A	28.8	N/A
Propylene glycol monomethyl ether	5200	13000	N/A	11	N/A
Silicic acid, ethyl ester	6270	N/A	N/A	N/A	N/A
Ethyl Benzene	3500	17800	N/A	17.8	N/A
Xylene	4300	1700	N/A	11	N/A
Methanol	500	15800	64000	N/A	N/A
Trimethyl borate	6140	1980	N/A	N/A	N/A
Ethanol	7000	17100	N/A	124.7	N/A
sulfuric acid	2140	N/A	N/A	N/A	0.05
Zinc chloride	350	N/A	N/A	N/A	N/A

#### Other information

Prolonged or repeated contact may dry skin and cause irritation. Contains . methanol . Cannot be made nonpoisonous. May be fatal or cause blindness if swallowed. Sanding and grinding dusts may be harmful if inhaled. 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
ropylene glycol monomethyl ether	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
Ethyl Benzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
,	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
iron hydroxide oxide yellow	Acute LC50 >100000 mg/l	Fish	96 hours
Methanol	Acute LC50 13 mg/l Fresh water	Fish	96 hours
Ethanol	Acute EC50 7640 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Zinc chloride	Acute EC50 22 μg/l Fresh water	Algae - Raphidocelis subcapitata - Exponential growth phase	72 hours
	Acute EC50 5.64 mg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 0.2 mg/l	Crustaceans	48 hours
	Acute LC50 0.14 mg/l Fresh water	Daphnia - <i>Daphnia galeata</i> - Neonate	48 hours
	Acute LC50 0.4 to 2.2 mg/l	Fish	96 hours
	Chronic EC10 10 μg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i> - Exponential growth phase	72 hours
	Chronic EC10 58 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	21 days

Japan Page: 11/16

**Product name SIGMAZINC 158 BINDER** 

# 12. Ecological information

#### Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Ethyl Benzene	-	79 % - Readily - 10 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
Thyl Benzene Xylene Ethanol	-		- -		Readily Readily Readily	′

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Propylene glycol monomethyl ether	<1	-	Low
Ethyl Benzene	3.6	79.43	Low
Xylene	3.12	7.4 to 18.5	Low
Methanol	-0.77	-	Low
Trimethyl borate	-1.9	-	Low
Ethanol	-0.35	-	Low

#### **Mobility in soil**

Soil/Water partition

coefficient

: Not available.

**Mobility** 

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

# 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.

Japan Page: 12/16

# 14. Transport information

	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	AINT PAINT	
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

#### **Additional information**

: None identified. UN : None identified. **IMDG 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

# 15. Regulatory information

#### **Fire Service Law**

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class I petroleums	II	Flammable - Keep Fire Away	200 L

### Pollutant Release and Transfer Registers (PRTR)

Ingredient name		
Ethylbenzene	13	53
Xylene	7.3	80

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

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

Ingredient name	%		Reference number
ethyl benzene	≥10 - ≤20	Special Organic Solvents	3-3

### Substance(s) requiring labelling

Product code 00482687 **Date of issue 8 October 2025** Version 2 **Product name SIGMAZINC 158 BINDER** 

# 15. Regulatory information

Ingredient name	%	Status	Reference number
<b>⊘</b> rystalline silica	≥20 - ≤30	Listed	165-2
Silica, crystalline(2025-04)	≥20 - ≤30	Listed	2-578 (2025-04)
Propylene glycol monomethyl ether	≥20 - ≤30	Listed	496, 2-1787 (2025-04)
Ethylbenzene	≥10 - ≤20	Listed	70, 2-247 (2025-04)
Xylene	≤10	Listed	136, 2-426 (2025-04)
Iron oxide	≤10	Listed	192, 2-624 (2025-04)
Methanol	≤10	Listed	560, 2-2006 (2025-04)
Ethanol	≤10	Listed	61, 2-205 (2025-04)

### **Chemicals requiring notification**

Ingredient name	%	Status	Reference number
<b>⊘</b> rystalline silica	≥20 - ≤30	Listed	165-2
Silica, crystalline(2025-04)	≥20 - ≤30	Listed	2-578 (2025-04)
Propylene glycol monomethyl ether	≥20 - ≤30	Listed	496, 2-1787
Ethylbenzene	≥10 - ≤20	Listed	(2025-04) 70, 2-247 (2025-04)
Xylene	≤10	Listed	136, 2-426 (2025-04)
Iron oxide	≤10	Listed	192, 2-624 (2025-04)
Methanol	≤10	Listed	560, 2-2006 (2025-04)
Ethanol	≤10	Listed	61, 2-205 (2025-04)

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

Ingredient name	%		Reference number
	≥20 - ≤30	Listed	-
quartz	≤10	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** 

: Not listed

**Japan** Page: 14/16

**Product name SIGMAZINC 158 BINDER** 

# 15. Regulatory information

**Harmful Substances** 

**Subject to Obtaining Permission for Manufacturing** 

Harmful Substances,

**Prohibited for Manufacturing** 

: Not listed

: Not listed

**ISHL Enforcement Order Appendix 1 - Dangerous** 

: Inflammable

**Substances** 

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

poisoning prevention

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

None of the components are listed.

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

Ingredient name	%	Status	Reference number
Ethylbenzene	≥10 - ≤20	Priority assessment	50
Xylene	≤10	Priority assessment	125

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

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 1 **List of Specially Controlled** 

**Industrial Waste** 

: Not listed

Japan inventory : All components are listed or exempted.

: Not available. **Road law** 

### 16. Other information

**History** 

Date of issue/Date of

: 8 October 2025

revision

Date of previous issue : 3/25/2025

**Version** : 2

**Japan** Page: 15/16

**Product name SIGMAZINC 158 BINDER** 

# 16. Other information

Prepared by

: FHS

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

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.

Japan Page: 16/16