

# SAFETY DATA SHEET

SIGMAZINC 158/SIGMAGUARD 750 PIGMENT



Date of issue 15 May 2025

Version 1.01

## 1. Product and company identification

**Product name** : SIGMAZINC 158/SIGMAGUARD 750 PIGMENT  
**Product code** : 000010022948  
**Other means of identification** : 00140360  
**Product type** : Powder.

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

**Product use** : Professional applications.  
**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** : EYE IRRITATION - Category 2B  
HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 1  
HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : Causes eye irritation.  
Very toxic to aquatic life with long lasting effects.

### Precautionary statements

**Prevention** : Avoid release to the environment. Wash thoroughly after handling.

**Response** : Collect spillage. 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** : Not applicable.

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

## 2. Hazards identification

**Other hazards which do not result in classification** : May form explosible dust-air mixture if dispersed. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

## 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           |
|--------------------------------------|----------|------------|----------------|
| zinc powder - zinc dust (stabilized) | 50 - 100 | 7440-66-6  | Not available. |

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** : 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 eye irritation.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

## 4. First aid measures

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
- Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed. This material is very 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:  
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 dust. 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

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

## 6. Accidental release measures

### Large spill

: 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. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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. 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

None.

### Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, 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

## 8. Exposure controls/personal protection

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hygiene measures</b>       | : 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.                                                                                                                                                                                                                |
| <b>Eye protection</b>         | : Safety glasses with side shields.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Skin protection</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hand protection</b>        | : 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. |
| <b>Body protection</b>        | : 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.                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Other skin protection</b>  | : 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.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Respiratory protection</b> | : 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

|                         |                               |
|-------------------------|-------------------------------|
| <b>Physical state</b>   | : Solid.<br>Powder.           |
| <b>Odor</b>             | : Characteristic.             |
| <b>Flash point</b>      | : Closed cup: Not applicable. |
| <b>Relative density</b> | : 7.1                         |

### Solubility(ies)

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |

## 10. Stability and reactivity

|                                           |                                                                                              |
|-------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients. |
| <b>Chemical stability</b>                 | : The product is stable.                                                                     |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.            |
| <b>Conditions to avoid</b>                | : When exposed to high temperatures may produce hazardous decomposition products.            |

## 10. Stability and reactivity

**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: metal oxide/oxides

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name              | Result                          | Species | Dose        | Exposure |
|--------------------------------------|---------------------------------|---------|-------------|----------|
| zinc powder - zinc dust (stabilized) | LC50 Inhalation Dusts and mists | Rat     | >5.4 mg/l   | 4 hours  |
|                                      | LD50 Oral                       | Rat     | >2000 mg/kg | -        |

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

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

Not available.

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

Not available.

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

#### Potential acute health effects

**Eye contact** : Causes eye irritation.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

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

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

## 11. Toxicological information

|                     |                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>irritation<br>watering<br>redness        |
| <b>Inhalation</b>   | : Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |
| <b>Skin contact</b> | : No specific data.                                                                       |
| <b>Ingestion</b>    | : No specific data.                                                                       |

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

#### Short term exposure

|                                    |                  |
|------------------------------------|------------------|
| <b>Potential immediate effects</b> | : Not available. |
| <b>Potential delayed effects</b>   | : Not available. |

#### Long term exposure

|                                    |                  |
|------------------------------------|------------------|
| <b>Potential immediate effects</b> | : Not available. |
| <b>Potential delayed effects</b>   | : Not available. |

#### Potential chronic health effects

|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| <b>General</b>               | : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards.                                    |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards.                                    |
| <b>Reproductive toxicity</b> | : No known significant effects or critical hazards.                                    |

### Numerical measures of toxicity

#### Acute toxicity estimates

N/A

#### Other information :

Sanding and grinding dusts may be harmful if inhaled.

## 12. Ecological information

### Toxicity

| Product/ingredient name              | Result                             | Species                                                                       | Exposure |
|--------------------------------------|------------------------------------|-------------------------------------------------------------------------------|----------|
| zinc powder - zinc dust (stabilized) | Acute EC50 0.106 mg/l Fresh water  | Algae - <i>Pseudokirchneriella subcapitata</i>                                | 72 hours |
|                                      | Acute EC50 354 µg/l Fresh water    | Daphnia - <i>Daphnia magna</i>                                                | 48 hours |
|                                      | Chronic EC10 27.3 µg/l Fresh water | Algae - <i>Raphidocelis subcapitata</i> - Exponential growth phase            | 72 hours |
|                                      | Chronic EC10 6.3 µg/l              | Daphnia - <i>Daphnia magna</i> - Neonate                                      | 21 days  |
|                                      | Chronic LC10 185 µg/l Fresh water  | Fish - <i>Oncorhynchus mykiss</i> - Juvenile (Fledgling, Hatchling, Weanling) | 30 days  |

### Persistence/degradability

Not available.

## 12. Ecological information

### Bioaccumulative potential

Not available.

### 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport information

|                             | UN                                                                                           | IMDG                                                                                         | IATA                                                                                         |
|-----------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| UN number                   | UN3077                                                                                       | UN3077                                                                                       | UN3077                                                                                       |
| UN proper shipping name     | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.<br>(Zinc powder - zinc dust (stabilized)) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.<br>(Zinc powder - zinc dust (stabilized)) | Environmentally hazardous substance, solid, n.o.s.<br>(Zinc powder - zinc dust (stabilized)) |
| Transport hazard class(es)  | 9                                                                                            | 9                                                                                            | 9                                                                                            |
| Packing group               | III                                                                                          | III                                                                                          | III                                                                                          |
| Environmental hazards       | Yes.                                                                                         | Yes.                                                                                         | Yes.                                                                                         |
| Marine pollutant substances | Not applicable.                                                                              | (Zinc powder - zinc dust (stabilized))                                                       | Not applicable.                                                                              |

### Additional information

- UN** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. The segregation group has been manually assigned based upon product analysis.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.



## 14. Transport information

**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 to IMO instruments** : Not applicable.

## 15. Regulatory information

### Fire Service Law

| Category    | Substance name/Type                   | Danger category | Signal word    | Designated quantity |
|-------------|---------------------------------------|-----------------|----------------|---------------------|
| Category II | Material that contains: metal powders | Not available.  | Not available. | Not available.      |

### Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

### Industrial Safety and Health Act

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

None of the components are listed.

#### Substance(s) requiring labelling

None of the components are listed.

#### Chemicals requiring notification

None of the components are listed.

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

None of the components are listed.

#### Mutagen

None of the components are listed.

**Corrosive liquid** : Not listed

**Occupational Safety and Health Law** : Combustible

**Regulations on the Prevention of Tetraalkyl Lead Poisoning** : Not listed

**Harmful Substances Subject to Obtaining Permission for Manufacturing** : Not listed

**Harmful Substances, Prohibited for Manufacturing** : Not listed

**ISHL Enforcement Order Appendix 1 - Dangerous Substances** : Combustible

**Lead regulation** : Not listed

## 15. Regulatory information

**Organic solvents poisoning prevention** : Not applicable.

### Poisonous and Deleterious Substances

None of the components are listed.

### Chemical Substances Control Law (CSCL)

None of the components are listed.

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

### Explosives Control Law

None of the components are listed.

**Law concerning prevention of pollution of the ocean** : Marine pollutant: P

### 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** : Not listed

**List of Specially Controlled Industrial Waste** : Not listed

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

**Road law** : Not available.

## 16. Other information

### History

**Date of issue/Date of revision** : 15 May 2025

**Date of previous issue** : 5/2/2025

**Version** : 1.01

**Prepared by** : EHS

**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

## 16. Other information

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.