

# Safety Data Sheet

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## 1.Substance identity and company contact information

Product name: OneFire Sterling PMC  
 Company: MITSUBISHI MATERIALS TRADING CORPORATION  
 Address: NIHONBASHI HAMACHO F TOWER 17F,3-21-1, HAMACHO,NIHONNBASHI,  
 CHUO-KU,TOKYO 103-0007,JAPAN  
 Telephone Number: 81-3-3660-1653  
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## 2.Hazards identification

### GHS classification

Physical and chemical hazards	Sort of Gunpowder	Out of classification
	Combustibility, Ignition gas	Out of classification
	Combustibility, Ignition aerosol	Out of classification
	Oxidizing gas	Out of classification
	High pressure gas	Out of classification
	Ignition liquid	Impossible to classify
	Combustibility solid	Impossible to classify
	Self reaction chemical	Out of classification
	Spontaneous combustion liquid	Out of classification
	Spontaneous combustion solid	Impossible to classify
	Self heating chemical	Impossible to classify
	Water reaction combustibility chemical	Impossible to classify
	Oxidizing liquid	Out of classification
	Oxidizing solid	Out of classification
	Organic dioxide	Out of classification
	Metal corrosive substance	Impossible to classify
Adverse human health effects	Acute toxicity(Oral)	Out of classification
	Acute toxicity(Dermal)	Out of classification
	Acute toxicity(Inhalation: Gas)	Out of classification
	Acute toxicity(Inhalation: Steam)	Out of classification
	Acute toxicity(Inhalation: Dust)	Impossible to classify
	Acute toxicity(Inhalation: Mist)	Impossible to classify
	Skin corrosive, Irritation	Out of classification
	Heavy injuries to eyes, Irritation	Division 2B
	Sensitization of respiratory organs	Impossible to classify
	Sensitization of skin	Out of classification
	Variation of germ cell	Impossible to classify
	Carcinogenicity	Impossible to classify
	Genital toxicity	Out of classification
	Specific target organs, General toxicity (Single exposure)	Out of classification
	Specific target organs, General toxicity (Repetition exposure)	Out of classification
Environmental effects	Hazardous of Inhalational respiratory organ	Impossible to classify
	Acute hazardous to the	Impossible to classify
	Chronic hazardous to the	Impossible to classify
	Hazardous to the ozone layer	Impossible to classify

### Label element



Alert Words: Warning

Hazards information: Eye irritation  
 Causes damage to organs (Eyes, Respiratory organs(inhalation) or lungs) through prolonged or repeated exposure  
 Can be hazardous by long-term influence.  
 May cause an allergic skin reaction.

Specific danger/hazard: When the product is heated to a high temperature, organic binder's gas may be generated.

Caution:  
 [Safety Measure] Though rare, it is possible for some individuals to experience skin rash or itchiness after contact with PMC sterling.  
 If you have a reaction, discontinue use and consult a physician.  
 Wash hands after use; do not ingest and keep out of the reach of children.  
 Take care to avoid burn injury.

- 【First aid】 In case of inhaling, move sufferers to place filled with fresh air, and let repose with posture easy to breath.  
 If having indisposition, arrange for transport to nearest medical facility for examination and treatment by a physician.  
 If on skin: wash with plenty of soap and water.  
 If skin irritation or rash occurs: get medical advice/attention.  
 If get into eyes: gently rinse the affected eyes with clean water, in case of wearing contact lens, better to remove them.  
 If constant eye irritation: receive medical treatment.  
 If chemical exposure or its risk: receive medical treatment.
- 【Storage】 Keep in room temperature, avoid high temperature and humidity  
 Do not put it in a refrigerator
- 【Disposal】 No information

### 3. Chemical composition and data on components

#### Chemical substance

Chemical name or common name	Abbreviation	Content (wt%)	Law Concerning the Examination and Regulation of Manufacture, etc., of Chemical Substances	Industrial Safety and Health Law	CAS No.
Silver	Ag	>85.3%	Except from the law (as element)	Article 18.2, Attached Table 9-137 of Cabinet order (as element)	7440-22-4
Copper oxide	CuO	<4.4%	Except from the law (as element)	Article 18.2, Attached Table 379	1317-38-0
organic binder Water	-	balance	-	-	-

### 4. First-aid measures

- Inhalation: Move sufferers to place filled with fresh air, and let repose with posture easy to breath.  
 If having indisposition, arrange for transport to nearest medical facility for examination and treatment by a physician.
- Skin contact: Flush with water and soap as soon as possible.  
 If skin irritation or rash occurs: Get medical advice/attention.
- Eye contact: Gently rinse the affected eyes with clean water. In case of wearing contact lens, better to remove them.  
 Arrange for transport to nearest medical facility for examination and treatment by a physician.
- Ingestion: Brush away or rinse inside a mouth with water, and see a doctor.  
 If having indisposition, arrange for transport to nearest medical facility for examination and treatment by a physician.  
 Follow doctor's instruction whether or not to induce vomiting when unconscious.
- Expected acute symptom or in behind: Influence of long-term or repetition exposure: Likely to give arise discoloration (silver stain; silver intoxication) of eyes, nose, throat or skin.  
 Eye: Irritate mucous membrane, red and sore eye.
- Most important indications or symptom: No information.
- Protection for rescuer: No information.
- Special caution for physician: No information.

### 5. Fire-fighting measures

- Extinguish media: Water, powder, CO<sub>2</sub>
- Forbidden extinguish media: No information.

### 6. Accidental release measures

- Caution for the human body, protective and emergency measure: No information.
- Caution for the environment: No information.
- Retrieve, Neutralization: Sweep leakages and retrieve empty containers. Afterward dispose it.
- Containment and cleaning way : Stop leaking if not in danger.
- Prevention of secondary disaster: No information.

### 7. Handling and storage

- Handling:
- Technical measure: Do appropriate engineering controls and use proper personal protective equipment as indicated in Section 8.
- Ventilation: Do appropriate ventilation as indicated in Section 8.
- Caution for safety handling: Obtain special instructions before use.  
 Do not eat, drink or smoke while using.  
 Use at well-ventilated area only.  
 Wash hands carefully after use.  
 Make efforts to keep the working place tidy and in order, and keep away from fire.
- Avoidance of contact: Refer to Section 10.

## Storage:

Technical measure: Keep in room temperature, avoid high temperature and humidity

Conditions to storage: Do not put it in a refrigerator

Materials of containers or package: No information

## 8. Exposure control and personal protection

Control concentration:	[Ag]	[CuO]
Allowance concentration (Exposure limit, Biological exposure indicator) : ACGIH	No set TLV-TWA : 0.1mg/m <sup>3</sup>	No set TLV-TWA : 1mg/m <sup>3</sup>
Engineering Controls:	In case of having dust, use ventilation device. Use adequate ventilation in the sintering process, because of having gas from organic binder and carbon oxide.	
Personal Protective Equipment:	Wear appropriate protective gloves.	
Hands:	Wear appropriate protective eyeglasses (standard glasses type, standard glasses with side board type, goggles type) or face shield.	
Eyes:	Wear appropriate protective face protections.	
Skin and Body:	Wash hands carefully after use.	
Sanitary measure:		

## 9. Physical and chemical properties

Odor:	[Ag]	[CuO]
pH :	Odorless	Odorless
Melting point, Coagulating point:	No data	No data
Boiling point, Initial boiling point and Boiling range:	962°C (Melting Point)	1026°C (Melting Point)
Flash point:	2212°C (Boiling Point)	resolution
Explosion range:	No data	No data
Steam pressure:	No data	No data
Steam density(Air=1):	0.000000565Pa (25°C) (Conversion value)	No data
Specific Gravity:	No data	No data
Solubility:	10.5g/cm <sup>3</sup>	6.32g/cm <sup>3</sup>
Octanol/Water Partition Coefficient:	Insoluble(Water)	Insoluble(Water)
Spontaneous combustion temperature:	No data	No data
Decomposition temperature:	No data	No data
Threshold of odor:	No data	No data
Evaporation speed (Butyl acetate= 1):	No data	No data
Combustion property(Solid, Gas):	No data	No data
Viscosity:	No data	No data

## 10. Stability and reactivity

Chemical Stability: Stable at room temperature and in the air.

Incompatibilities with Other Materials: No information

Conditions to Avoid: avoid high temperature and humidity

Hazardous Polymerization: No information

Hazardous Decomposition Products: No information

## 11. Toxicological information

Acute toxicity:	Oral	Rat	LD <sub>50</sub>	[CuO]
Skin corrosive, Irritation:	[Ag]			470mg/kg
Heavy injuries to eyes·Irritation:	>5,000mg/			
Sensitization of respiratory organs or Variation of germ cell :	No data.			
Carcinogenicity:	Eye irritation (Division 2B)			
	Sensitization of respiratory organs: No data.			
	Sensitization of skin: No data.			
	No data			
	No data.			

Genital toxicity:	No data
Specific target organs, General toxicity (Single exposure):	No data
Specific target organs, General toxicity (Repetition exposure):	No data
Hazardous of Inhalational respiratory organs :	No data

#### 12. Ecological information

Acute hazardous to the aquatic Environmental:	Impossible to classify because of insufficient data.
Chronic hazardous to the aquatic Environmental:	Impossible to classify because of insufficient data.
Ecological toxicity:	No data
Hazardous to the ozone layer:	No data

#### 13. Disposal considerations

The rest of waste, contaminated vessel :	No data
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#### 14. Transport information

##### International regulations:

UN classification:	Not applicable to the criteria for classification.
UN number:	Not applicable to the criteria for classification.
UN proper shipping	Not applicable to the criteria for classification.
Packing group:	Not applicable to the criteria for classification.
Marine pollutant:	Not applicable to the criteria for classification.
Domestic regulations:	Refer to laws and regulation that are applied.
Special precautions:	No information
Emergency response guideline number:	No information

#### 15. Regulations

##### In Japan

Industrial Safety and Health Act (Result of Mutagenicity Tests):	[Ag] Ag and its water-soluble compounds: Article 18-2, Attached Table 9-137 of Cabinet order
Export trade control order	Not Identified

#### 16. Other information

The information is revised by the new knowledge. Although the information herein is based on the best of our knowledge, we cannot guarantee the accuracy or completeness of the information contained.