



# Investment Casting Powder SAFETY DATA SHEET

Date: 9/12/13  
Rev: 05

In compliance with Regulation (EC) 1907/2006 and Regulation (EC) 453/2010

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

### 1.1 Product Identifier

Product Name: Investment Casting Powder  
REACH Registration No: Exempted in accordance with Annex V.7  
Synonyms: n/a  
Trade Names: LC Brass, GS KB, GS XL, GS XXX, GS Omega, GS Gem Set, GS Crystalcast, GS Shoe Cast M028, M456, M464, m463, M391, M625, M454 Omega plus 200 series

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

Main Applications (non exhaustive list):  
Casting of Jewelry and Industrial products

### 1.3 Details of the supplier of the Safety Data Sheet

Company Name: Gold Star Powders Ltd  
Address: Spencroft Road, Holditch Industrial Estate  
Newcastle under Lyme, Staffordshire, ST5 9JE, UK  
Phone No. +44 (0)1782 663600  
Fax No. +44 (0)1782 663611  
Email address: info@goldstarpowders.com

### 1.4 Emergency telephone number:

Emergency Telephone No. +44 (0)1782 663600

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture:

Available outside office hours? No  
This product contains respirable crystalline silica (RCS) as an impurity and therefore is classified as STOT RE1 according to criteria defined in the regulation EC 1272/2008 and harmful according to criteria defined in Directive 67/548/EEC due to the potential for generation of airborne respirable crystalline silica.

Airborne respirable crystalline silica may be generated during the handling and use of the product. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause fibrosis, commonly referred to as Silicosis. Principal systems of Silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

Regulation EC 1272/2008:



DANGER  
STOT RE1

H372: Causes damage to lungs through prolonged or repeated exposure via inhalation

Classification EU (67/548/EEC):



Symbol letter: Xn  
Indication of danger: Harmful  
Risk Phrases: R48/20 Harmful: Danger of serious damage to health by prolonged exposure through inhalation.

This product contains more than 10% respirable cristobalite.

### 2.2 Label elements:



Signal Word: Danger  
Hazard Statements: H350: May cause cancer  
H372: Causes damage to lungs through prolonged or repeated exposure via inhalation.

Precautionary Statements: P260: Do not breathe dust.  
P285: In case of inadequate ventilation wear respiratory equipment.  
P501: Dispose of contents/containers in accordance with local regulations.

### 2.3 Other Hazards:

This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH



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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixture

	<u>CAS #</u>	<u>OEL</u>	<u>%</u>
Cristobalite	14464-46-1	0.05mg/m <sup>-3</sup>	40 - 70
Quartz	14808-60-7	0.1mg/m <sup>-3</sup>	20 - 40
Gypsum	778-18-9	5mg/m <sup>-3</sup>	20 - 30

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures:

- Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes. If irritation persists seek medical advice.
- Inhalation: Move exposed person to fresh air immediately and seek medical advice.
- Ingestion: DO NOT induce vomiting, seek medical advice.
- Skin Contact: Take off contaminated clothing. Wash off with soap and water. Seek medical advice.

### 4.2 Most important symptoms and effects both acute and delayed

No acute and delayed symptoms and effects are observed.

### 4.3 Indication of any immediate medical attention and special treatment needed:

No specific actions are required.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media:

No specific extinguishing media is needed.

### 5.2 Special hazards arising from the substance or mixture:

Non combustible. No hazardous thermal decomposition.

### 5.3 Advice for firefighters:

No specific fire fighting protection is required.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective and emergency procedures:

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

### 6.2 Environmental precautions:

No special requirements.

### 6.3 Methods and material for containment and cleaning up:

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

### 6.4 Reference for other sections:

See sections 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

Avoid airborne dust generation.

### 7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool dry place and keep packaging sealed when not in use.

### 7.3 Specific end use(s):

No data available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters:

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust)

The WEL (Workplace Exposure Limit) for respirable crystalline dust is 0.1 mg/m<sup>-3</sup> in the UK, measured as an 8 hour TWA (Time Weighted Average).

For the equivalent limits in other countries consult your local regulatory authority.

### 8.2 Exposure controls:

#### 8.2.1 Appropriate engineering controls:

Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering control methods to keep airborne levels below the specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personal from dusty areas. Wash hands before breaks and at the end of the day. Remove and wash soiled clothing.



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## 8.2.2 Personal protective equipment:

- Eye / face protection: Safety glasses and face shield. Use equipment for eye protection tested and approved under appropriate standards.
- Skin protection: No specific requirement. For hands see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for employees who suffer from dermatitis or sensitive skin.
- Hand protection: Appropriate protection (e.g. gloves, barrier cream) is recommended for employees who suffer from dermatitis or sensitive skin.
- Respiratory protection: Dust mask or equivalent to EN149, FFP3. In case of prolonged exposure to airborne dust concentrations, wear powered respiratory equipment that complies with the requirements of European or national legislation.



## 8.2.3 Environmental exposure controls:

Avoid wind dispersal.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

- Appearance: Fine, white powder.
- Odor: Odorless
- pH: 8-9
- Melting point: No data available.
- Boiling point: No data available.
- Flash point: No data available.
- Relative density: No data available.
- Water solubility: Non soluble

### 9.2 Other information:

No other information.

## 10. STABILITY AND REACTIVITY

- 10.1 Reactivity: No data available.
- 10.2 Chemical Stability: Chemically stable.
- 10.3 Possibility of hazardous reactions: No hazardous reactions.
- 10.4 Conditions to avoid: No data available.
- 10.5 Incompatible materials: No data available.
- 10.6 Hazardous decomposition products: No data available.

## 11. TOXICOLOGY INFORMATION

### 11.1 Information on toxicology effects:

- a) Acute toxicity:  
Based on available data, the classification is not met.
- b) Skin corrosion/irritation:  
Based on available data, the classification is not met.
- c) Serious eye damage/irritation:  
Based on available data, the classification is not met.
- d) Respiratory or skin sensation:  
Based on available data, the classification is not met.
- e) Germ cell mutagenicity:  
Based on available data, the classification is not met.
- f) Carcinogenicity:  
Based on available data, the classification is not met.
- g) Reproductive toxicity:  
Based on available data, the classification is not met.
- h) STOT-single exposure:  
Based on available data, the classification is not met.
- i) STOT-repeated exposure:  
This product contains respirable cristobalite and respirable quartz as an Impurity and therefore is classified as STOT RE1 according to criteria defined in the Regulation EC 1272/2008.
- Prolonged and/or massive exposure to respirable crystalline silica dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles.



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In 1997, the International Agency for Research on Cancer (IARC) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated, (*IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Volume 6, IARC, Lyon, France*)

In June 2003 the EU Scientific Committee on Occupational Exposure Limits (SCOEL) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "*There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently , not in employees without silicosis exposed to silica dust in quarries and the UK ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk...*" (SCOEL SUM Doc 94-final, June 2003).

So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional Risk Management Measures where required, see Section 16.

Health & Safety Executive (HSE) - Specific for the UK.

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by the HSE, see Section 16.

- j) Aspiration hazard:  
Based on available data, the classification is not met.

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity: No data available.
- 12.2 Persistence and degradability: No data available.
- 12.3 Bioaccumulative potential: No data available.
- 12.4 Mobility in soil: No data available.
- 12.5 Results of PBT and vPvB assessment: No data available
- 12.6 Other adverse effects: No specific adverse effects known

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

#### Product:

Where possible, recycling is preferable to disposal. This should be carried out in compliance with local regulations.

#### Packaging:

Dust residue from residues in packaging should be avoided and suitable work protection assured.

The re-use of packaging is not recommended. Recycle and disposal of packaging should be carried out in compliance with local regulations and authorized waste management company

## 14. TRANSPORT INFORMATION

- 14.1 UN Number: No data available.
- 14.2 UN proper shipping name: No data available.
- 14.3 Transport hazard class(es):  
ADR: Not dangerous goods.  
IMDG: Not dangerous goods.  
ICAO/IATA: Not dangerous goods.  
RID: Not dangerous goods.
- 14.4 Packing group: No data available.
- 14.5 Environmental hazards: No data available.
- 14.6 Special precautions for user: No data available.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: No data available.

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

International legislation/requirements:

Regulation 1907/2006 (REACH):  
Exempted. According to art.2, paragraph 7.

European Directive on Dangerous Substances 67/548:  
This product is not classified as dangerous.

European Community Labeling:  
Labeling SOT RE1 required.



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## 15.2 Chemical safety assessment:

Exempt from REACH Registration in accordance with Annex V7.

## 16. OTHER INFORMATION

### Training:

Employees must be trained in the proper use and handling of this product as required under applicable regulations.

### Guidance Books:

EH40/2005 - Workplace Exposure Information

EH44/1997 - Dust: General Principles of Protection

EH75/4 (2002) - Respirable Crystalline Silica - Phase 1

EH75/5 (2003) - Respirable Crystalline Silica - Phase 2

HSG37 - An Introduction to Local Exhaust Ventilation

### Liability:

Such information given on this safety data sheet is to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as its accuracy, reliability or completeness. It is the users responsibility to satisfy itself as to the suitability and completeness of such information for their own particular use.

### Indication of the changes made to the previous revision of the SDS:

15/10/2012 - First Issue

9/5/2013 - M625 Added

17/6/2013 - M454 Added

21/10/13—M463 Added

9/12/13 GS KB Added