

# SAFETY DATA SHEET

## GRANULATED BLAST FURNACE SLAG

Infosafe No.: LPUVX  
Issued Date: 05/02/2016  
Issued by: AUSTRALIAN STEEL MILL  
SERVICES PTY LIMITED

### 1. IDENTIFICATION

---

**GHS Product Identifier**

GRANULATED BLAST FURNACE SLAG

**Product Code**

GBF006

**Company Name**

AUSTRALIAN STEEL MILL SERVICES PTY LIMITED

**Address**

Springhill Road Port Kembla  
NSW 2505 Australia

**Telephone/Fax Number**

Tel: 02 4255 1100  
Fax: 02 4276 2313

**Recommended use of the chemical and restrictions on use**

Suitable for use in a range of manufacturing and civil applications including:

- Grinding for cement replacement
- Block making
- Roadbase stabilisation
- Water treatment

### 2. HAZARD IDENTIFICATION

---

**GHS classification of the substance/mixture**

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

---

**Information on Composition**

Quartz analysis in respirable fraction of dust:

The sampling and analysis was conducted in accordance with Australian Standard 2985 - 2009 - "Workplace Atmospheres - Method for Sampling and Gravimetric Determination of Respirable Dust" and in conjunction with the "direct on filter" method in the National Health & Medical Research Council "Methods for Measurement of Quartz in Respirable Airborne Dust by Infrared Spectroscopy and X-Ray Diffractometry", October, 1984.

Of the dust that became airborne as result of generation apparatus used, the respirable fraction of this dust was found to contain no detectable respirable quartz.

## Ingredients

| Name                                       | CAS        | Proportion |
|--|------------|------------|
| Calcium oxide                              | 1305-78-8  | 30-60 %    |
| Silicon dioxide                            | 7631-86-9  | 30-60 %    |
| Aluminium oxide                            | 1344-28-1  | 10-30 %    |
| Magnesium oxide                            | 1309-48-4  | 1-10 %     |
| Quartz                                     | 14808-60-7 | 0-0.5 %    |
| Ingredients determined not to be hazardous |            | Balance    |

## 4. FIRST-AID MEASURES

---

### Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

### Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

### Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

### Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

### First Aid Facilities

Eyewash and normal washroom facilities.

### Advice to Doctor

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

---

### Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment.

### Hazards from Combustion Products

Non combustible material.

### Special Protective Equipment for fire fighters

Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA).

### Specific Hazards Arising From The Chemical

This product is non combustible. However heating can cause expansion or decomposition leading to violent rupture of containers.

### Decomposition Temperature

Not available

### Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers.

## 6. ACCIDENTAL RELEASE MEASURES

---

### Emergency Procedures

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

## 7. HANDLING AND STORAGE

---

### Precautions for Safe Handling

Keep exposure to this product to a minimum. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### Occupational exposure limit values

No exposure value assigned for this material by Safe Work, Australia. However, the available exposure limits for ingredients are listed below:

Crystalline silica  
(respirable dust)  
TWA: 0.1mg/m<sup>3</sup>

Calcium oxide  
TWA: 2mg/m<sup>3</sup>

Aluminium oxide  
TWA: 10mg/m<sup>3</sup>

Magnesium oxide  
TWA: 10mg/m<sup>3</sup>

Silicon dioxide  
TWA: 2mg/m<sup>3</sup>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

### Biological Limit Values

No biological limits allocated.

### Appropriate Engineering Controls

Use with good general ventilation. If dust is produced, local exhaust ventilation should be used.

### Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used (P1). Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

### Eye Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

### Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

### Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| Properties                | Description                  | Properties               | Description   |
|---------------------------|------------------------------|--------------------------|---|
| Form                      | Solid                        | Appearance               | Antique white to grey grains with grain sizes < 5mm diameter. |
| Colour                    | White to grey                | Odour                    | No odour detected at room temperature.                        |
| Decomposition Temperature | Not available                | Melting Point            | 1420°C  |
| Boiling Point             | Not applicable               | Solubility in Water      | Partially soluble in water.                                   |
| Specific Gravity          | 1900kg/m <sup>3</sup> (23°C) | pH                       | 10.2 (at 0.4%)  |
| Vapour Pressure           | Not applicable               | Vapour Density (Air=1)   | Not applicable  |
| Evaporation Rate          | Not available                | Odour Threshold          | Not available   |
| Viscosity                 | Not available                | Density                  | Not available   |
| Flash Point               | Not applicable               | Flammability             | Non-combustible material                                      |
| Auto-Ignition Temperature | Not applicable               | Flammable Limits - Lower | Not applicable  |
| Flammable Limits - Upper  | Not applicable               |                          |   |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not available

### Chemical Stability

Stable under normal conditions of use.

### Reactivity and Stability

Not available

### Conditions to Avoid

Extremes of temperature and direct sunlight

### Incompatible materials

Not available - Granulate is inert.

### Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes

### Possibility of hazardous reactions

Not available

### Hazardous Polymerization

Will not occur.

## 11. TOXICOLOGICAL INFORMATION

---

### **Toxicology Information**

No toxicity data available for this product.

### **Ingestion**

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

### **Inhalation**

Inhalation of dusts may irritate the respiratory system.

### **Skin**

Skin contact may cause mechanical irritation resulting in redness and itching.

### **Eye**

Eye contact may cause mechanical irritation. May result in mild abrasion.

### **Respiratory sensitisation**

Not expected to be a respiratory sensitiser.

### **Skin Sensitisation**

Not expected to be a skin sensitiser.

### **Germ cell mutagenicity**

Not considered to be a mutagenic hazard.

### **Carcinogenicity**

Not considered to be a carcinogenic hazard.

This product may contain crystalline silica (ie. is below the detection limit). Crystalline Silica (respirable size  $\leq 7 \mu\text{m}$ ) has been classified by the International Agency for Research on Cancer (IARC) as Carcinogenic to Humans (Group 1).

Silica, amorphous is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

### **Reproductive Toxicity**

Not considered to be toxic to reproduction.

### **STOT-single exposure**

Not expected to cause toxicity to a specific target organ.

### **STOT-repeated exposure**

Not expected to cause toxicity to a specific target organ.

### **Aspiration Hazard**

Not expected to be an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

---

### **Ecotoxicity**

No ecological data available for this material.

### **Persistence and degradability**

Not available

### **Mobility**

Not available

### **Bioaccumulative Potential**

Not available

### **Other Adverse Effects**

Not available

### **Environmental Protection**

Prevent this material entering waterways, drains or sewers.

## 13. DISPOSAL CONSIDERATIONS

---

### Disposal considerations

Dispose of waste according to applicable local and national regulations.

## 14. TRANSPORT INFORMATION

---

### Transport Information

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

### U.N. Number

None Allocated

### UN proper shipping name

None Allocated

### Transport hazard class(es)

None Allocated

### Special Precautions for User

Not available

### IMDG Marine pollutant

No

### Transport in Bulk

Not available

## 15. REGULATORY INFORMATION

---

### Regulatory information

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

### Poisons Schedule

Not Scheduled

### Australia (AICS)

All components of this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempted.

## 16. OTHER INFORMATION

---

### Date of preparation or last revision of SDS

MSDS Reviewed: February 2016

Supersedes: November 2010

### References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous

chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

## **END OF SDS**

© Copyright Chemical Safety International Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

The compilation of MSDS's displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copying of any MSDS displayed is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of MSDS without the express written consent of Chemical Safety International Pty Ltd.