

# Material Safety Data Sheet

CS: 1.4.93

Page: 1 of 4

Infosafe No™ LPUVX Issue Date : November 2010 ISSUED by ASMS

Product Name : GRANULATED BLAST FURNACE SLAG

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** GRANULATED BLAST FURNACE SLAG  
**Product Code** GBF006  
**Company Name** AUSTRALIAN STEEL MILL SERVICES  
**Address** Springhill Road Port Kembla  
NSW 2505 Australia  
**Telephone/Fax** Tel: 02 4255 1110  
**Number** Fax: 02 4276 2313  
**Recommended Use** Granulated blast furnace slag

## 2. HAZARDS IDENTIFICATION

**Hazard Classification** NON-HAZARDOUS SUBSTANCE.  
NON-DANGEROUS GOODS.  
Hazard classification according to the criteria of NOHSC.  
Dangerous goods classification according to the Australia Dangerous Goods Code.

**Safety Phrase(s)** S22 Do not breathe dust.  
S24/25 Avoid contact with skin and eyes.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Information on Composition** Bulk Fraction Quartz analysis by Fourier Transform Infrared (FTIR) Spectroscopy was performed on a sample of this product. The results showed Alpha quartz was not detected at the limit of detection <0.5% w/w. (Respirable fraction of dust was not analysed, as bulk quartz was not detected.)

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	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 from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.

**Ingestion** Do NOT induce vomiting. Wash out mouth with water. If symptoms develop seek medical attention.

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

**Eye** If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.

**First Aid Facilities** Eye wash fountains 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** Not available

**Special Protective Equipment for fire fighters** Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA).

**Specific Hazards** This product is non combustible.

# Material Safety Data Sheet

CS: 1.4.93

Page: 2 of 4

Infosafe No™ LPUVX Issue Date : November 2010 ISSUED by ASMS

Product Name : **GRANULATED BLAST FURNACE SLAG**

**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.

## 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 plastic 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** 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** Store in a cool, well-ventilated area. For stockpiles: should be kept damp if possible to prevent dispersion by wind. Store in labelled, corrosion-resistant containers. Keep containers tightly closed. Store away from incompatible materials. Have appropriate fire extinguishers available in and near the storage area. Ensure that storage conditions comply with applicable local and national regulations.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards** No exposure standards have been established for this material, however, the TWA National Occupational Health And Safety Commission (NOHSC) exposure standards for dust not otherwise specified is 10 mg/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.

**Biological Limit Values** No biological limits allocated.

**Engineering Controls** Provide sufficient ventilation to keep airborne levels below the exposure limits. Where dust is generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

**Respiratory Protection** Industrial application: If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. 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 side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices 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. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

**Body Protection** Industrial application: 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

**Appearance** Antique white to grey grains with grain sizes < 5mm diameter.

**Odour** No odour detected at room temperature.

**Melting Point** 1420°C

**Boiling Point** Not available

**Solubility in Water** Partially soluble in water.

# Material Safety Data Sheet

CS: 1.4.93

Page: 3 of 4

Infosafe No™ LPUVX

Issue Date : November 2010

ISSUED by ASMS

Product Name : **GRANULATED BLAST FURNACE SLAG**

---

<b>pH Value</b>	10.2 (at 0.4g/mL concentration)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (Air=1)</b>	Not available
<b>Volatile Component</b>	8.2% at 40°C
<b>Density</b>	Not available
<b>Flash Point</b>	Not applicable
<b>Flammability</b>	Non-combustible material
<b>Auto-Ignition Temperature</b>	Not applicable
<b>Flammable Limits - Lower</b>	Not applicable
<b>Flammable Limits - Upper</b>	Not applicable

---

## 10. STABILITY AND REACTIVITY

---

<b>Chemical Stability</b>	Stable under normal conditions of use.
<b>Conditions to Avoid</b>	Not available
<b>Incompatible Materials</b>	Not available - Granulate is inert.
<b>Hazardous Decomposition Products</b>	Not available
<b>Hazardous Polymerization</b>	Will not occur.

---

## 11. TOXICOLOGICAL INFORMATION

---

<b>Toxicology Information</b>	No toxicity data available for this product.
<b>Inhalation</b>	Inhalation of dusts may irritate the respiratory system.
<b>Ingestion</b>	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
<b>Skin</b>	Skin contact may cause mechanical irritation resulting in redness and itching.
<b>Eye</b>	Eye contact may cause mechanical irritation. May result in mild abrasion.
<b>Chronic Effects</b>	Prolonged or repeated exposure to this material may result in skin irritation and in irritation to the eyes and respiratory tract. Although not detected during testing (Alpha quartz was not detected at the limit of detection less than 0.5% w/w) - This product may contain traces of respirable crystalline silica, hence bronchitis, silicosis (scarring of the lungs) may occur.

---

## 12. ECOLOGICAL INFORMATION

---

<b>Ecotoxicity</b>	No ecological data are available for this material.
<b>Persistence / Degradability</b>	Not available
<b>Mobility</b>	Not available
<b>Environ. Protection</b>	Prevent this material entering waterways, drains or sewers.

---

## 13. DISPOSAL CONSIDERATIONS

---

<b>Disposal Considerations</b>	Dispose of waste according to applicable local and national regulations.
--------------------------------	--

---

## 14. TRANSPORT INFORMATION

---

<b>Transport Information</b>	Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
------------------------------	---

---

# Material Safety Data Sheet

CS: 1.4.93

Page: 4 of 4

Infosafe No™ LPUVX

Issue Date : November 2010

ISSUED by ASMS

Product Name : **GRANULATED BLAST FURNACE SLAG**

---

## 15. REGULATORY INFORMATION

---

<b>Regulatory Information</b>	Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
	Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Poisons Schedule</b>	Not Scheduled

---

## 16. OTHER INFORMATION

---

<b>Date of preparation or last revision of MSDS</b>	MSDS Reviewed: November 2010 Supersedes: September 2005
---	--

...End Of MSDS...

© Copyright ACOHS 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 Acohs Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.  
The compilation of MSDS's displayed is the intellectual property of Acohs 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 Acohs Pty Ltd.