

## SAFETY DATA SHEET

## Ground Granulated Blast Furnace Slag

## Section 1: Identification of the Material and Supplier

## Company Details

Cement Australia Pty Limited

ABN 75 104 053 474

18 Station Avenue  
Darra, Queensland 4076**Tel:** 1300 CEMENT (1300 236 368)**Fax:** 1800 CEMENT (1800 236 368)**Website:** [www.cementaustralia.com.au](http://www.cementaustralia.com.au)**Emergency Contact Number:****Contact Person:** Technical ManagerTelephone: 1300 CEMENT (1300 236 368 - Business Hours) or  
Poisons Information Centre 13 11 26

## Manufacturing Plants

Brisbane

77 Pamela Street, Pinkenba QLD 4008

Port Kembla

Off Christy Rd, Port Kembla, NSW 2505

## Product

**Name:**

Ground Granulated Blast Furnace Slag

**Other Names:**

Slag, Ecocem, Milled Slag, Ground Slag, GGBFS

**Use:**

Ground Granulated Blast Furnace Slag is a supplementary cementitious material that is a partial replacement for Portland Cement in concrete and other similar products.

## Section 2: Hazards Identification

## 2.1 Classification



WARNING

## GHS CLASSIFICATION

**Classified as Hazardous** according to the Safe Work Australia guidelines for Globally Harmonised System of Classification and Labelling of Chemicals (GHS).**Not classified as Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)For more information call **1300 CEMENT** (1300 236 368)  
or visit [www.cementaustralia.com.au](http://www.cementaustralia.com.au)*Mix it with the best.***CEMENT  
AUSTRALIA®**

## Hazard Class and Category

Specific Target Organ Systemic Toxicity (Single Exposure): **Category 3**

Skin Corrosion/Irritation: **Category 2**

Serious Eye Damage / Eye Irritation: **Category 2A**

## 2.2 GHS Label elements

### Pictograms and Signal Words



**DANGER**

### Hazard statement(s)

- |             |                                   |
|-------------|-----------------------------------|
| <b>H315</b> | Causes skin irritation.           |
| <b>H319</b> | Causes serious eye irritation.    |
| <b>H335</b> | May cause respiratory irritation. |

### Prevention statement(s)

- |             |   |
|-------------|---|
| <b>P261</b> | Avoid breathing dust.   |
| <b>P264</b> | Wash skin thoroughly after handling.  |
| <b>P271</b> | Use only outdoors or in a well-ventilated area.   |
| <b>P280</b> | Wear protective gloves/protective clothing/eye protection/face protection against Dust. |

### Response statement(s)

- |                           |  |
|---------------------------|--|
| <b>P302 + P352</b>        | IF ON SKIN: Wash with plenty of soap and water.  |
| <b>P304 + P340</b>        | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  |
| <b>P305 + P351 + P338</b> | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| <b>P312</b>               | Call a POISON CENTER or doctor/physician if you feel unwell.   |
| <b>P321</b>               | Specific treatment is advised - see first aid instructions.  |
| <b>P332 + P337 + P313</b> | If skin or eye irritation occurs: Get medical advice/ attention.   |
| <b>P362</b>               | Take off contaminated clothing and wash before re-use.   |

### Storage statement(s)

- |                    |  |
|--------------------|--|
| <b>P403 + P233</b> | Store in a well-ventilated place. Keep container tightly closed. |
| <b>P405</b>        | Store locked up.   |

### Disposal statement(s)

- |             |  |
|-------------|--|
| <b>P501</b> | Dispose of contents/container in accordance with relevant regulations. |
|-------------|--|

## 2.3 Other hazards

No information provided.

## Section 3: Composition/Information on Ingredients

GGBFS derives from a by-product of the steel industry produced by adding limestone flux to the ore to remove non-ferrous contaminants. This raw product is then milled to a fine powder form for its intended use. All significant constituents are listed below:

Chemical Entity	Proportion	CAS Number
Granulated Blast Furnace Slag	>90%	65996-69-2

## Section 4: First Aid Measures

### 4.1 Description of first aid measures

<b>Eye:</b>	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
<b>Inhalation:</b>	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
<b>Skin:</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
<b>Ingestion:</b>	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>First aid facilities:</b>	Eye wash facilities and safety shower should be available.

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

Irritating to the eyes, skin and respiratory system. Chronic over exposure to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness. Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the trace amounts of chromium present. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).

### 4.3 Immediate medical attention and special treatment needed

Treat as for moderate to strong alkali and symptomatically.

## Section 5: Fire Fighting Measures

<b>Fire/Explosion Hazard:</b>	None
<b>Hazchem Code:</b>	None allocated
<b>Flammability:</b>	Not flammable
<b>Extinguishing Media:</b>	None required
<b>Hazards from Combustion Products:</b>	None
<b>Special Protective Precautions and equipment for fire fighters:</b>	None required

## Section 6: Accidental Release Measures

<b>Spills:</b>	Spills are best cleaned up by vacuum device to avoid generating airborne dust. Recommendations on Exposure Control and Personal Protection should be followed during spill clean-up. Keep product out of storm water and sewer drains.
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## Section 7: Handling and Storage

- Handling:** When supplied in bags these need to be handled in accordance with Hazardous Manual Tasks Code of Practice.
- Storage:** Protect from excessive moisture and heat to prevent hardening. Storage of GGBFS may be in silos or steel bins.
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## Section 8: Exposure Controls/Personal Protection

### 8.1 Control parameters

#### Exposure standards

No exposure standards have been entered for this product.

#### Biological limits

No biological limit values have been entered for this product.

### 8.2 Exposure controls

**Engineering controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

#### PPE

- Eye / Face** Wear safety glasses or dust-proof goggles when handling material to avoid contact with eyes.
- Hands** Wear PVC, rubber or cotton gloves when handling material to prevent skin contact.
- Body** Wear long sleeved shirt and full-length trousers.
- Respiratory** Where an inhalation risk exists wear a Class P1 (Particulate) respirator, dependent on a site-specific risk assessment.
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## Section 9: Physical and Chemical Properties

- Appearance (dry):** A fine powder ranging in colour from grey to off-white
- Odour:** No distinctive odour
- Boiling/Melting Point:** Melting point >1200°C
- Vapour Pressure:** Not applicable
- Specific Gravity:** 3.0 – 3.2
- Flash Point:** Non applicable
- Flammability Limits:** Not applicable
- Solubility in Water:** Slight, reacts on mixing with water forming an alkaline (caustic) solution (pH >10)
- Particle Size:** Up to 50% of the fresh dry material may be respirable (below 10 microns)
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## Section 10: Stability and Reactivity

- Chemical Stability:** Chemically stable
- Conditions to Avoid:** Keep free of moisture
- Incompatible Materials:** None
- Hazardous Decomposition Products:** None

**Hazardous Reactions:** None

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## Section 11: Toxicological Information

GGBFS products are stable substances, compatible with most other building materials, will not decompose into hazardous by-products and do not polymerise.

<b>Acute toxicity</b>	No known toxicity data is available for this product. Based on available data, the classification criteria are not met.
<b>Skin</b>	Irritating to the skin. Contact with powder or wetted form may result in irritation, rash and dermatitis.
<b>Eye</b>	Irritating to the eyes. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.
<b>Sensitization</b>	This product is not classified as a skin or respiratory sensitiser.
<b>Mutagenicity</b>	Insufficient data available to classify as a mutagen.
<b>Reproductive STOT – single exposure</b>	Insufficient data available to classify as a reproductive toxin. Irritating to the respiratory system. Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties.
<b>Aspiration</b>	This product is a solid and aspiration hazards are not expected to occur.

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## Section 12: Ecological Information

<b>Ecotoxicity:</b>	Product forms an alkaline slurry when mixed with water.
<b>Persistence and Degradability:</b>	Product is persistent and would have a low degradability.
<b>Mobility:</b>	A low mobility would be expected in a landfill situation.

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## Section 13: Disposal Considerations

GGBFS can be treated as a common waste for disposal or dumped into a landfill site, in accordance with local authority guidelines.

Keep material out of storm water and sewer drains.

Measures should be taken to prevent dust generation during disposal, and exposure and personal precautions should be observed (see above)

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## Section 14: Transport Information

Transportation is done in bulk or bag form by Ship, Rail and Road.

<b>UN Number:</b>	None allocated
<b>Proper Shipping Name:</b>	None allocated
<b>Class and Subsidiary Risk:</b>	None allocated
<b>Packing Group:</b>	None allocated
<b>Special precautions for user:</b>	Avoid generating and breathing dust
<b>Hazchem Code:</b>	None allocated

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## Section 15: Regulatory Information

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

All chemicals listed on the Australian Inventory of Chemical Substances (AICS)

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## Section 16: Other Information

**For further information on this product contact:**

**Telephone:** 1300 CEMENT (1300 236 368) (Business Hours)

**Facsimile:** 1800 CEMENT (1800 236 368)

**Previous Edition and edits made:**

**2020** – Format updates

**2022** – Format updates

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**Next Review Date for this SDS: 31 December 2026.**

## Australian and New Zealand Standards:

AS 2161: Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).

AS/NZ 1336: Recommended Practices for Occupational Eye Protection.

AS/NZS 1715: Selection, use and maintenance of respiratory protective devices.

AS/NZS 1716: Respiratory protective devices.

AS/NZS 4501: Occupational protective clothing.

## Advice Note:

Cement Australia believes the information in this document to be accurate as at the date of preparation, but, to the maximum extent permitted by law, Cement Australia accepts no responsibility for any loss or damage caused by any person acting or refraining from action because of this information.

The provision of this information should not be construed by anyone as a recommendation to use this product. No one should use any product in violation of any patent or other intellectual proprietary rights or in breach of any statute or regulation.

Users should rely on their own knowledge and inquiries and make their own determination as to the applicability of this information in relation to their particular purposes and specific circumstances. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace and in conjunction with other substances or products.

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[SDS Ends]