SAFETY DATA SHEET

Blended Cement

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

Emergency Contact Number: Contact Person: Technical Manager
Telephone: 1300 CEMENT (1300 236 368 - Business Hours) or Poisons Information Centre 13 11 26

Manufacturing Plants

Gladstone: Landing Rd, Fisherman’s Landing, Gladstone QLD 4680
Brisbane: 77 Pamela St, Pinkenba QLD 4008
Railton: Cement Works Rd, Railton, TAS 7305
Port Kembla Off Christy Rd, Port Kembla, NSW 2505

Terminals

Glebe: Sommerville Rd, Glebe Island, NSW 2037
Clyde: Highgate St, Auburn, NSW 2144
Melbourne: Currajong St. West Footscray, VIC 3012
Townsville: Benwell Rd, Townsville Port Townsville, QLD 4810
Bulwer: 77 Pamela St, Pinkenba QLD 4008
Gladstone: Landing Rd, Fisherman’s Landing, Gladstone QLD 4680
Newcastle: Highgate Street, Auburn NSW 2144

Product

Name: Blended Cement
Other Names: General Purpose Blended Cement
Low Heat Cement
Shrinkage Limited (SL)
Sulphate Resisting Cement

Use: Blended Cement is used as a binder in concrete, concrete masonry, mortar and grouts. It is also used in the manufacture of fibre cement products, in soil stabilisation in building construction and civil engineering projects.

Blended Cements can contain various proportions of pozzolans depending on the use case. This SDS covers all blends and incorporates a GHS Hazard identification for the blend with the highest proportion of materials requiring the highest hazard rating. This SDS reflects the handling of Cement Powder in bulk or bagged form. Adding water to Cement changes the properties and the SDS for the listed use cases above should be referenced.
Section 2: Hazards Identification

Hazardous Substance. Non-dangerous Goods

Serious Eye Damage / Eye Irritation: Category 2A
Skin Corrosion/Irritation: Category 2
Specific Target Organ Systemic Toxicity (Single Exposure): Category 3 *
Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2

Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Prevention statement(s)
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection rated for Dust.
P260 + P261 Avoid/Do not breathe dust. Cement can become easily airborne.

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

Storage statement(s)
P403 + P233 Store in a well-ventilated place.
P405 Keep container tightly closed. Store locked up.

Disposal statement(s)
P501 Dispose of contents/container in accordance with relevant regulations.

* Specific Target Organ Systemic Toxicity (Single Exposure): Category 3 relates to the addition of Fly ash in Blended Cement. Some Cement Blends contain no Fly ash; therefore, Crystalline Silica risk is not strictly applicable. However, the use of recommended PPE is still advised.

Section 3: Composition/Information on Ingredients

Blended Cement consists of a crystalline mass manufactured from substances mined from the earth’s crust. It contains trace amounts of naturally occurring, metals such as chromium and nickel and crystalline silica. Blended Cements have up to 80% of added supplementary cementitious material (fly ash or ground granulated slag).

<table>
<thead>
<tr>
<th>Chemical Entity</th>
<th>Proportion</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Cement Clinker</td>
<td>20-95%</td>
<td>65997-15-1</td>
</tr>
<tr>
<td>Ground Granulated Blast Furnace slag</td>
<td>8-80%</td>
<td>65996-69-2</td>
</tr>
<tr>
<td>(where applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly ash (where applicable)</td>
<td>8-50%</td>
<td>68131-74-8</td>
</tr>
<tr>
<td>Gypsum (CaSO₄·2H₂O)</td>
<td>0-5%</td>
<td>10101-41-4</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>0-3%</td>
<td>1305-78-8</td>
</tr>
<tr>
<td>Limestone (CaCO₃)</td>
<td>0-5%</td>
<td>1317-65-3</td>
</tr>
<tr>
<td>Hexavalent Chromium Cr (VI)</td>
<td>&lt;20 ppm</td>
<td>1333-82-0</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)</td>
<td>&lt;1 up to 10%</td>
<td>14808-60-7</td>
</tr>
</tbody>
</table>
Section 4: First Aid Measures

**Swallowed:** Rinse mouth and lips with water. Do not induce vomiting. Give water to drink to dilute stomach contents. If symptoms persist, seek medical attention.

**Eyes:** Flush thoroughly with flowing water for 15 minutes to remove all traces. If symptoms such as irritation or redness persist, seek medical attention. If wet cement is splashed in the eye, always treat as above, and seek urgent medical attention.

**Skin:** Remove heavily contaminated clothing immediately. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent irritation or burning of the skin.

**Inhaled:** Remove to fresh air, away from dusty area. If symptoms persist, seek medical attention.

**First Aid Facilities:** Eye wash station. Washing facilities with running water.

**Advice to Doctor:** Treat symptomatically. Wet cement burns to skin or eye may result in corrosive caustic burns. Ingestion of significant amounts of cement dry or wet is unlikely. Do not induce emesis or perform gastric lavage. Neutralization with acidic agents is not advised because of increased risks of exothermic burns. Water-mineral oil soaks may aid in removing hardened cement from the skin. Ophthalmological opinion should be sought for ocular burns.

Section 5: Fire Fighting Measures

**Fire/Explosion Hazard:** Blended Cements are stable substances, compatible with most other building materials, will not decompose into hazardous by-products and do not polymerise

**Hazchem Code:** None allocated

**Flammability:** Not flammable

**Extinguishing Media:** None required

**Hazards from Combustion Products:** None

**Special Protective Precautions and equipment for fire fighters:** None required

Section 6: Accidental Release Measures

**Spills:** 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. Wetting during clean-up will cause formation of setting cement.

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 moisture to prevent hardening. Storage of cement may be in concrete silos, steel bins, or plastic lined multi-ply paper bags.
Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

### Exposure standards

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate (Limestone, Marble, Whiting)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Chromium (VI) compounds (as Cr)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>0.05</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Gypsum (Calcium sulphate)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Magnesium oxide (fume)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Portland Cement</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Silica – Crystalline Quartz (respirable dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>0.1</td>
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<td>--</td>
</tr>
</tbody>
</table>

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:** A fine powder ranging in colour from grey to off-white
- **Odour:** No distinctive odour
- **Boiling/Melting Point:** Melting point >1200ºC
- **Vapour Pressure:** Not applicable
- **Specific Gravity:** 2.7 – 3.2
- **Flash Point:** Non applicable
- **Solubility in Water:** Slight, reacts on mixing with water forming an alkaline (caustic) solution (pH >11)
- **Particle Size:** Up to 40% of the fresh dry material may be respirable (below 10 microns)

Section 10: Stability and Reactivity

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

- **Chemical Stability:** Chemically stable
- **Conditions to Avoid:** Keep free of moisture during storage
- **Incompatible Materials:** None
- **Hazardous Decomposition Products:** None
- **Hazardous Reactions:** None
Section 11: Toxicological Information

11.1 Information on toxicological effects

**Acute toxicity**
No known toxicity data is available for this product. Based on available data, the classification criteria are not met.

**Skin**
Irritating to the skin. Contact with powder or wetted form may result in irritation, rash and dermatitis.

**Eye**
Irritating to the eyes. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

**Sensitization**
This product is not classified as a skin or respiratory sensitiser. However, some individuals may exhibit an allergic response upon exposure to cement, possibly due to trace amounts of chromium.

**Mutagenicity**
Insufficient data available to classify as a mutagen.

**Carcinogenicity**
This product may contain crystalline silica, when the blend contains Fly ash, which is classified as carcinogenic to humans (IARC Group 1). However, there is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk.

**Reproductive**
Insufficient data available to classify as a reproductive toxin.

**STOT – single exposure**
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.

**STOT – repeated exposure**
Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness. In the wet state, the likelihood of an inhalation hazard is reduced.

**Aspiration**
This product is a solid and aspiration hazards are not expected to occur.

Section 12: Ecological Information

**Ecotoxicity:**
Product forms an alkaline slurry when mixed with water.

**Persistence and Degradability:**
Product is persistent and would have a low degradability.

**Bio accumulative potential:**
This product is not expected to bioaccumulate.

**Mobility:**
A low mobility would be expected in a landfill situation.

Section 13: Disposal Considerations

Blended Cement 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)

Section 14: Transport Information

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

**UN Number:** None allocated

**Proper Shipping Name:** None allocated

**Class and Subsidiary Risk:** None allocated

**Packing Group:** None allocated

**Special precautions for user:** Avoid generating and breathing dust

**Hazchem Code:** None allocated
Section 15: Regulatory Information

Blended Cement is not classified as Dangerous Goods.

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)

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)


Next Review Date for this MSDS: 31 December 2020.

Australian and New Zealand Standards:

AS 2161: Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).
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 noted below, 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 SDS 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.