

## SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### 1.1 Product identifier

**Product name** GENERAL PURPOSE CEMENT

**Synonyms** BERRIMA SL • BLUE CIRCLE GENERAL PURPOSE CEMENT • BLUE CIRCLE HIGH EARLY STRENGTH CEMENT • BLUE CIRCLE OFF WHITE CEMENT • BLUE CIRCLE® SOUTHERN WHITE CEMENT • BRIGHTONLITE • CRÈME CEMENT • GP CEMENT • HARDIES CEMENT • HE CEMENT • HES CEMENT • HIGH EARLY STRENGTH CEMENT • ISO-MENT • KOORAGANG GP • MALDON GP • OFF WHITE CEMENT • SHRINKAGE LIMITED CEMENT • SL CEMENT • SOUTHERN WHITE CEMENT • SUNLITE • TYPE GP • TYPE HE • TYPE SL • TYPE SR • WHITE CEMENT

### 1.2 Uses and uses advised against

**Uses** BINDING AGENT • CONCRETE • CONSTRUCTION • GROUT • INDUSTRIAL APPLICATIONS • MANUFACTURE OF CEMENTS • MASONRY • MORTAR • SOIL STABILISATION

### 1.3 Details of the supplier of the product

**Supplier name** BORAL AUSTRALIA

**Address** Level 18, 15 Blue Street, North Sydney, NSW, 2060, AUSTRALIA

**Telephone** (02) 9220 6300

**Website** <http://www.boral.com.au>

### 1.4 Emergency telephone numbers

**Emergency** 1800 555 477 (8am – 5pm WST)

**Emergency (A/H)** 13 11 26 (Poisons Information Centre)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

#### Physical Hazards

Not classified as a Physical Hazard

#### Health Hazards

Skin Corrosion/Irritation: Category 2

Serious Eye Damage / Eye Irritation: Category 1

Specific Target Organ Toxicity (Single Exposure): Category 3 (Respiratory Irritation)

Carcinogenicity: Category 1

#### Environmental Hazards

Not classified as an Environmental Hazard

### 2.2 GHS Label elements

**Signal word** DANGER

**Pictograms**



**PRODUCT NAME GENERAL PURPOSE CEMENT****Hazard statements**

H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.

**Prevention statements**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response statements**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P321 Specific treatment is advised - see first aid instructions.  
P362 Take off contaminated clothing and wash before re-use.

**Storage statements**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Disposal statements**

P501 Dispose of contents/container in accordance with relevant regulations.

**2.3 Other hazards**

No information provided.

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**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

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**3.1 Substances / Mixtures**

| Ingredient                          | CAS Number | EC Number | Content |
|-------------------------------------|------------|-----------|---------|
| PORTLAND CEMENT                     | 65997-15-1 | 266-043-4 | >87.5%  |
| LIMESTONE (CALCIUM CARBONATE)       | 1317-65-3  | 215-279-6 | <7.5%   |
| GYPSUM                              | 13397-24-5 | 603-783-2 | <5%     |
| CALCIUM OXIDE                       | 1305-78-8  | 215-138-9 | <3%     |
| QUARTZ (CRYSTALLINE SILICA)         | 14808-60-7 | 238-878-4 | <1%     |
| HEXAVALENT CHROMIUM                 | 18540-29-9 | -         | <0.002% |
| ASHES (RESIDUES)                    | 68131-74-8 | 268-627-4 | <7.5%   |
| SLAGS, FERROUS METAL, BLAST FURNACE | 65996-69-2 | 266-002-0 | <7.5%   |
| MAGNESIUM OXIDE                     | 1309-48-4  | 215-171-9 | <3%     |

**Ingredient Notes** 1. Depending upon the source material, may contain varying amounts of respirable quartz (crystalline silica).  
2. Chromium VI is a trace impurity in Portland Cement (< 20 ppm).

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**4. FIRST AID MEASURES**

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**4.1 Description of first aid measures**

**Eye** 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.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** 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.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities** 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.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

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

Non flammable. May evolve toxic gases if strongly heated.

### 5.3 Advice for firefighters

No fire or explosion hazard exists.

### 5.4 Hazchem code

None allocated.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Contact emergency services where appropriate.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Contain spillage, then collect and place in suitable containers for reuse or disposal. Avoid generating dust.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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

Store in a cool, dry, well ventilated area, removed from moisture, incompatible substances and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

### 7.3 Specific end uses

No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure standards

| Ingredient                                     | Reference      | TWA |                   | STEL |                   |
|--|----------------|-----|-------------------|------|-------------------|
|  |                | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| Calcium carbonate (Limestone, Marble, Whiting) | SWA [AUS]      | --  | 10                | --   | --                |
| Calcium oxide                                  | SWA [AUS]      | --  | 2                 | --   | --                |
| Calcium oxide                                  | SWA [Proposed] | --  | 1                 | --   | --                |
| Chromium (VI) (as Cr)                          | SWA [Proposed] | --  | 7E-6              | --   | --                |
| Chromium (VI) compounds (as Cr)                | SWA [AUS]      | --  | 0.05              | --   | --                |
| Gypsum (Calcium sulphate)                      | SWA [AUS]      | --  | 10                | --   | --                |
| Magnesium oxide (fume)                         | SWA [AUS]      | --  | 10                | --   | --                |
| Portland Cement                                | SWA [AUS]      | --  | 10                | --   | --                |
| Quartz (respirable dust)                       | SWA [AUS]      | --  | 0.1               | --   | --                |
| Quartz (respirable dust)                       | SWA [Proposed] | --  | 0.05              | --   | --                |
| Quartz (respirable dust)                       | WorkSafe VIC   | --  | 0.05              | --   | --                |

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### 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

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



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

|                                  |                                |
|----------------------------------|--------------------------------|
| <b>Appearance</b>                | FINE WHITE TO DARK GREY POWDER |
| <b>Odour</b>                     | ODOURLESS                      |
| <b>Flammability</b>              | NON FLAMMABLE                  |
| <b>Flash point</b>               | NOT RELEVANT                   |
| <b>Boiling point</b>             | NOT AVAILABLE                  |
| <b>Melting point</b>             | > 1200°C                       |
| <b>Evaporation rate</b>          | NOT AVAILABLE                  |
| <b>pH</b>                        | 11 to 13                       |
| <b>Vapour density</b>            | NOT AVAILABLE                  |
| <b>Specific gravity</b>          | 2.9 to 3.2                     |
| <b>Solubility (water)</b>        | < 10 g/L                       |
| <b>Vapour pressure</b>           | NOT AVAILABLE                  |
| <b>Upper explosion limit</b>     | NOT RELEVANT                   |
| <b>Lower explosion limit</b>     | NOT RELEVANT                   |
| <b>Partition coefficient</b>     | NOT AVAILABLE                  |
| <b>Autoignition temperature</b>  | NOT AVAILABLE                  |
| <b>Decomposition temperature</b> | NOT AVAILABLE                  |
| <b>Viscosity</b>                 | NOT AVAILABLE                  |
| <b>Explosive properties</b>      | NOT AVAILABLE                  |
| <b>Oxidising properties</b>      | NOT AVAILABLE                  |
| <b>Odour threshold</b>           | NOT AVAILABLE                  |

### 9.2 Other information

|                |   |
|----------------|---|
| <b>Density</b> | 1100 kg/m <sup>3</sup> to 1500 kg/m <sup>3</sup> (Bulk) |
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## 10. STABILITY AND REACTIVITY

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### 10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

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### 10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), ethanol, acids (e.g. hydrofluoric acid) and interhalogens (e.g. chlorine trifluoride). Water contact may increase product temperature 2°C to 3°C.

### 10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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### 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.

**Information available for the ingredients:**

| Ingredient                    | Oral LD50          | Dermal LD50 | Inhalation LC50 |
|-------------------------------|--------------------|-------------|-----------------|
| LIMESTONE (CALCIUM CARBONATE) | > 5000 mg/kg (rat) | --          | --              |

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

**Eye** Causes serious eye damage. Contact with moisture in the eyes may result in irritation, lacrimation, pain, redness, conjunctivitis and possible alkaline burns aided by mechanical irritation and abrasion.

**Sensitisation** Not classified as causing respiratory sensitisation. 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 contains crystalline silica 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. Hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1), however due to the trace amounts present, the criteria for classification is not met.

**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 by 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.

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## 12. ECOLOGICAL INFORMATION

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### 12.1 Toxicity

May be harmful to the aquatic environment due to the alkaline nature of the product. This product is non-toxic to aquatic organisms when present as a cured solid.

### 12.2 Persistence and degradability

Product is persistent and would have a low degradability.

### 12.3 Bioaccumulative potential

This product is not expected to bioaccumulate.

### 12.4 Mobility in soil

A low mobility would be expected in a landfill situation.

### 12.5 Other adverse effects

Avoid contamination of drains and waterways.

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## 13. DISPOSAL CONSIDERATIONS

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### 13.1 Waste treatment methods

**Waste disposal** Reuse or recycle where possible. Alternatively, ensure product is covered with moist soil to prevent dust generation and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).

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**Legislation**                    Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

|                             | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|-----------------------------|----------------------|----------------------------|-----------------------------|
| 14.1 UN Number              | None allocated.      | None allocated.            | None allocated.             |
| 14.2 Proper Shipping Name   | None allocated.      | None allocated.            | None allocated.             |
| 14.3 Transport hazard class | None allocated.      | None allocated.            | None allocated.             |
| 14.4 Packing Group          | None allocated.      | None allocated.            | None allocated.             |

### 14.5 Environmental hazards

No information provided.

### 14.6 Special precautions for user

Hazchem code None allocated.

## 15. REGULATORY INFORMATION

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

|                           |   |
|---------------------------|---|
| <b>Poison schedule</b>    | A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). |
| <b>Classifications</b>    | Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.                                      |
| <b>Inventory listings</b> | <b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b><br>All components are listed on AICS, or are exempt.                                       |

## 16. OTHER INFORMATION

### Additional information

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.



**PRODUCT NAME GENERAL PURPOSE CEMENT**

**Abbreviations**

|                   |   |
|-------------------|---|
| ACGIH             | American Conference of Governmental Industrial Hygienists                                       |
| CAS #             | Chemical Abstract Service number - used to uniquely identify chemical compounds                 |
| CNS               | Central Nervous System  |
| EC No.            | EC No - European Community Number   |
| EMS               | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)                   |
| GHS               | Globally Harmonized System  |
| GTEPG             | Group Text Emergency Procedure Guide  |
| IARC              | International Agency for Research on Cancer   |
| LC50              | Lethal Concentration, 50% / Median Lethal Concentration   |
| LD50              | Lethal Dose, 50% / Median Lethal Dose   |
| mg/m <sup>3</sup> | Milligrams per Cubic Metre  |
| OEL               | Occupational Exposure Limit   |
| pH                | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| ppm               | Parts Per Million   |
| STEL              | Short-Term Exposure Limit   |
| STOT-RE           | Specific target organ toxicity (repeated exposure)  |
| STOT-SE           | Specific target organ toxicity (single exposure)  |
| SUSMP             | Standard for the Uniform Scheduling of Medicines and Poisons                                    |
| SWA               | Safe Work Australia   |
| TLV               | Threshold Limit Value   |
| TWA               | Time Weighted Average   |

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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