



# Boral Cement Material Safety Data Sheet

**Product Name**      **LIMESTONE (BORAL CEMENT)**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name**      **BORAL CEMENT**  
**Address**              Clunies Ross Street , Prospect , NSW, AUSTRALIA, 2148  
**Telephone**          (02) 9033 4000  
**Fax**                      (02) 9033 4055  
**Emergency**         1800 033 111  
**Web Site**             <http://www.boral.com.au/cement>

**Synonym(s)**         BLUE CIRCLE SOUTHERN CEMENT LIMESTONE • CALCITE • CRUSHED LIMESTONE • GM250 AGLIME • NATURAL CALCIUM CARBONATE • SUPERFINE LIMESTONE • TERTIARY CRUSHED LIMESTONE

**Use(s)**                AGRICULTURAL LIMING • CALCIUM SUPPLEMENT • CHEMICAL PROCESSING • FILLER • FLUX • INDUSTRIAL APPLICATIONS • MANUFACTURE OF CEMENTS • MANUFACTURE OF GLASS • MANUFACTURE OF QUICKLIME • MANUFACTURE OF STEEL • NEUTRALISING AGENT • RAW MATERIAL • SOIL TREATMENT

**SDS Date**            30 Jul 2010

## 2. HAZARDS IDENTIFICATION

**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA**

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**UN No.**                None Allocated                      **DG Class**                None Allocated                      **Subsidiary Risk(s)**    None Allocated  
**Packing Group**    None Allocated                      **Hazchem Code**        None Allocated

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
QUARTZ (SILICA CRYSTALLINE)	Si-O2	14808-60-7	<3%
CALCIUM CARBONATE	Ca-C-O3	471-34-1	>90%
MAGNESIUM CARBONATE	Mg-CO3	546-93-0	<2%
ALUMINIUM OXIDE	Al2-O3	1344-28-1	<1.5%
IMPURITIES	Not Available	Not Available	<1%
IRON (III) OXIDE	Fe2-O3	1309-37-1	<1%

## 4. 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.

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

**Advice to Doctor**    Treat symptomatically.

**First Aid Facilities**   Eye wash facilities should be available.

## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Non flammable. May evolve toxic gases if strongly heated.
<b>Fire and Explosion</b>	No fire or explosion hazard exists.
<b>Extinguishing</b>	Prevent contamination of drains or waterways.
<b>Hazchem Code</b>	None Allocated

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	If spilt (bulk), use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from fluorine, acids, aluminium, ammonium salts and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
<b>Handling</b>	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.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

### Exposure Stds

Ingredient	Reference	TWA		STEL	
Aluminium oxide (a)	ASCC (AUS)	--	10 mg/m3	--	--
Calcium carbonate	ASCC (AUS)	--	10 mg/m3	--	--
Iron oxide fume (Fe2O3) (as Fe)	ASCC (AUS)	--	5 mg/m3	--	--
Magnesite (a)	ASCC (AUS)	--	10 mg/m3	--	--
Silica, Crystalline Quartz	ASCC (AUS)	--	0.1 mg/m3	--	--

**Biological Limits** No biological limit allocated.

**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** Wear dust-proof goggles. When using large quantities or where heavy contamination is likely, wear: rubber or PVC gloves and coveralls. Where an inhalation risk exists, wear: a Class P1 (Particulate) respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	GREY GRANULAR POWDER, PEBBLES OR LUMPS	<b>Solubility (water)</b>	13 mg/L
<b>Odour</b>	ODOURLESS	<b>Specific Gravity</b>	2.7
<b>pH</b>	8.5	<b>% Volatiles</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	NOT AVAILABLE	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	NOT AVAILABLE	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Melting Point</b>	NOT AVAILABLE	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE		
<b>Decomposition Temperature</b>	1000°C	<b>Density</b>	1400 - 1500 kg/m3 (Bulk)

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under recommended conditions of storage.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to Avoid</b>	Incompatible with acids (eg. nitric acid), fluorine, aluminium (hot) and ammonium salts.
<b>Hazardous Decomposition Products</b>	May evolve toxic gases if heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Health Hazard Summary</b>	Low toxicity - irritant. Use safe work practices to avoid eye or skin contact and inhalation. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). Chronic exposure to crystalline silica may result in lung fibrosis (silicosis). However, due to the low levels present, chronic health effects are not anticipated with normal use.
<b>Eye</b>	Irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	High chronic toxicity - irritant. Over exposure to dust may result in mucous membrane irritation of the respiratory tract. Chronic exposure to crystalline silica may result in silicosis (lung fibrosis). Crystalline silica is classified as carcinogenic to humans (IARC Group 1).
<b>Skin</b>	Irritant. Contact may result in irritation, redness, pain and rash.
<b>Ingestion</b>	Low toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation.
<b>Toxicity Data</b>	QUARTZ (SILICA CRYSTALLINE) (14808-60-7) LCLo (Inhalation): 300 ug/m <sup>3</sup> /10 years (human) LDLo (Intratracheal): 200 mg/kg (rat) LDLo (Intravenous): 20 mg/kg (dog) TCLo (Inhalation): 16 000 000 particles/ft <sup>3</sup> /8 hours/17.9 years (human-fibrosis) CALCIUM CARBONATE (471-34-1) LD50 (Ingestion): 6450 mg/kg (rat) IRON (III) OXIDE (1309-37-1) LDLo (Subcutaneous): 30 mg/kg (dog)

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## 12. ECOLOGICAL INFORMATION

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<b>Environment</b>	Calcium carbonate occurs naturally in a wide variety of substances including limestone, marble and egg shells. It is not anticipated to cause adverse environmental effects.
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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Disposal</b>	Ensure product is covered with moist soil to prevent dust generation and dispose of to approved Council landfill. Contact the manufacturer if additional information is required.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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### NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>Shipping Name</b>	None Allocated			
<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b> None Allocated
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	

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## 15. REGULATORY INFORMATION

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<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 Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

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<b>Additional Information</b>	RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.
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**EXPOSURE CONTROL:** If utilized in a closed system the potential for over exposure is reduced. If not used in a closed system, local exhaust ventilation is recommended to control exposure. Provide eye wash and safety shower in close proximity to points of potential exposure. Where the potential for an inhalation risk exists, an approved respirator may be required. Do not eat, store, consume food, tobacco or drink in areas where product is used.

**ABBREVIATIONS:**

ADB - Air-Dry Basis.  
BEI - Biological Exposure Indice(s)  
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.  
CNS - Central Nervous System.  
EC No - European Community Number.  
IARC - International Agency for Research on Cancer.  
M - moles per litre, a unit of concentration.  
mg/m<sup>3</sup> - Milligrams per cubic metre.  
NOS - Not Otherwise Specified.  
NTP - National Toxicology Program.  
OSHA - Occupational Safety and Health Administration.  
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).  
ppm - Parts Per Million.  
RTECS - Registry of Toxic Effects of Chemical Substances.  
TWA/ES - Time Weighted Average or Exposure Standard.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: 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 Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as 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.

**Report Status**

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

It is based on information concerning the product which has been provided to RMT by the manufacturer 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.

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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**SDS Date** 30 Jul 2010

**End of Report**