



# PORTLAND AND BLENDED CEMENTS

## Material Safety Data Sheet

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>SUPPLIER NAME:</b> SUNSTATE CEMENT LIMITED	<b>ADDRESS:</b> 8 Bulk Terminals Drive, Port of Brisbane Qld 4178
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<b>EMAIL:</b> damian.straede@sunstatecement.com.au	<b>SDS DATE:</b> 04 JUNE 2010
<b>SYNONYM(S):</b> BUILDERS CEMENT • SUNLITE • HIGH EARLY STRENGTH • LOW HEAT • SHRINKAGE LIMITED • HIGH SLAG BLEND • ROADBLEND • TYPE GB (FLY ASH BLEND CEMENT) • TYPE GB (SLAG BLEND CEMENT) • TYPE GP (GENERAL PURPOSE PORTLAND CEMENT) • TYPE HE (HE CEMENT) • TYPE LH (LOW HEAT CEMENT) • TYPE SL (SHRINKAGE LIMITED CEMENT) • TYPE SR (SULFATE RESISTING CEMENT)	
<b>USE(S):</b> CEMENT • CONSTRUCTION MATERIAL	

### 2. HAZARDS IDENTIFICATION

<b>CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA</b>					
<b>NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE</b>					
<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	<b>EPG</b>	None Allocated

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
QUARTZ (SILICA CRYSTALLINE)	Si-O <sub>2</sub>	14808-60-7	<35%
PORTLAND CEMENT	Not available	65997-15-1	>30%
GROUND BLAST FURNACE SLAG	Not Available	65997-69-2	<65%
FLY ASH	Not Available	68131-74-8	<30%
GYPSUM	Ca-S-O <sub>4</sub> -2(H <sub>2</sub> O)	13397-24-5	4-5%
LIMESTONE	Ca-CO <sub>3</sub>	1317-65-3	<5%

### 4. 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 Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>Advice to Doctor</b>	Treat symptomatically.

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## 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>	Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Prevent spill entering drains or waterways. Contain spillage, then collect and place in suitable containers for reuse or disposal. Avoid generating dust.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from moisture, oxidising agents, acids, ethanol, interhalogens (e.g. chlorine trifluoride) and foodstuffs. Ensure packages are adequately labeled, 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	
			ppm	mg/m3	ppm	mg/m3
	Gypsum (Calcium sulphate)	ASCC (AUS)	--	10	--	--
	Calcium carbonate	ASCC (AUS)	--	10	--	--
	Portland Cement	ASCC (AUS)	--	10	--	--
	Silica, Crystalline Quartz	ASCC (AUS)	--	0.1	--	--
<b>Biological Limits</b>	No biological limit allocated.					
<b>Engineering Controls</b>	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.					
<b>PPE</b>	Wear dust-proof goggles and rubber or PVC gloves. When using large quantities or where heavy contamination is likely, wear: coveralls. At high dust levels, wear: a Full-face Class P3 (Particulate) or an Air-line respirator. Where an inhalation risk exists, wear: a Class P1 (Particulate) respirator.					

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	FINE OFF-WHITE TO DARK GRAY POWDER	<b>Solubility (water)</b>	<10 g/L
<b>Odour</b>	SLIGHT ODOUR	<b>Specific Gravity</b>	2.8 to 3.2
<b>pH</b>	11 to 13	<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>	>1200°C	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE		
<b>Bulk Density</b>	1100 – 1550 kg/m3		

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### 10. STABILITY AND REACTIVITY

<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 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.
<b>Decomposition</b>	May evolve toxic gases if heated to decomposition.
<b>Hazardous Reactions</b>	Hazardous polymerization is not expected to occur.

### 11. TOXICOLOGICAL INFORMATION

<b>Health Hazard Summary</b>	Slightly corrosive - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. In the wet state, this product does not present an inhalation hazard. Crystalline silica may result in silicosis (lung disease) with chronic over exposure. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).
<b>Eye</b>	Corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, corneal burns, and possible permanent damage. Severe irritant upon contact with powder/ dust.
<b>Inhalation</b>	Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, coughing and bronchitis. Hexavalent chromium is reported to cause respiratory sensitisation, however due to the trace amount present, a hazard is not anticipated under normal conditions of use. Chronic exposure to respirable silica may result in pulmonary fibrosis (silicosis). Crystalline silica is classified as carcinogenic to humans (IARC Group 1).
<b>Skin</b>	Slightly corrosive. Contact with powder or wetted form may result in rash and dermatitis. May cause sensitisation by skin contact.
<b>Ingestion</b>	Slightly corrosive. Ingestion may result in burns to the mouth and throat, nausea, vomiting and abdominal pain. Ingestion is considered unlikely due to product form.
<b>Toxicity Data</b>	<b>QUARTZ (SILICA CRYSTALLINE) (14808-60-7)</b> 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) <b>GYP SUM (13397-24-5)</b> TCLo (Inhalation): 194 g/m <sup>3</sup> /10 years intermittently (human) TDLo (Ingestion): 450 mg/kg/3 weeks intermittently (rat)

### 12. ECOLOGICAL INFORMATION

<b>Environment</b>	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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### 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal</b>	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 for additional information.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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

Shipping Name	None Allocated				
UN No.	None Allocated	DG class	None Allocated	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	None Allocated	EPG	None Allocated

## 15. REGULATORY INFORMATION

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

## 16. OTHER INFORMATION

Additional Information	<p><b>CEMENT CONTACT DERMATITIS:</b> Individuals using wet cement, mortar, grout or concrete could be at risk of developing cement dermatitis. Symptoms of exposure include itchy, tender, swollen, hot, cracked, or blistering skin with the potential for sensitisation. The dermatitis is due to the presence of soluble (hexavalent) chromium.</p> <p><b>RESPIRATORS:</b> 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.</p> <p><b>ABBREVIATIONS:</b> ADB - Air-Dry Basis. BEI - Biological Exposure Indice(s) CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System. EINECS - European Inventory of Existing Commercial chemical Substances. 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.</p> <p><b>HEALTH EFFECTS FROM EXPOSURE:</b> 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.</p> <p><b>PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:</b> 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.</p>
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<b>Report Status</b>	<p>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').</p> <p>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.</p> <p>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.</p>
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**END OF REPORT.**