SAFETY DATA SHEET

Product Name **CONCRETE (BORAL CONCRETE)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name	**BORAL CONCRETE**
Address	Greystanes Rd, Sth Wentworthville, NSW, AUSTRALIA, 2145
Telephone	(02) 9688 9700
Fax	
Emergency	02 9688 9746
Synonym(s)	GROUT • MORTAR • PRE-MIXED CONCRETE • READY-MIXED CONCRETE
Use(s)	CONCRETE
SDS Date	22 Dec 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

SAFETY PHRASES

S22 Do not breathe dust.

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	30-60%
GRAVEL	Not Available	Not Available	30-60%
PORTLAND CEMENT	Not available	65997-15-1	10-30%
WATER	H2O	7732-18-5	1-10%

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. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
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.

5. FIRE FIGHTING MEASURES

Flammability Non flammable. May evolve toxic gases if strongly heated.

Fire and Explosion No fire or explosion hazard exists.

Extinguishing Prevent contamination of drains or waterways.

Hazchem Code None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spillage 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.

7. STORAGE AND HANDLING

Storage Store in a cool, dry, well ventilated area, removed from moisture, oxidising agents, acids, ethanol, interhalogens (eg. chlorine trifluoride) and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

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.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds

Ingredient	Reference	TWA		STEL	
Portland Cement	SWA (AUS)	--	10 mg/m^3	--	--
Silica, Crystalline Quartz	SWA (AUS)	--	0.1 mg/m^3	--	--

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 and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear: coveralls. At high dust levels, wear: a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter or a Class P3 (Particulate) respirator. Where an inhalation risk exists, wear: a Class P1 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	POWDER	**Solubility (water)**	INSOLUBLE
Odour	ODOURLESS	**Specific Gravity**	NOT AVAILABLE
pH	12 - 13	**% Volatiles**	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	**Flammability**	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	**Flash Point**	NOT RELEVANT
Boiling Point	NOT AVAILABLE	**Upper Explosion Limit**	NOT RELEVANT
Melting Point	NOT AVAILABLE	**Lower Explosion Limit**	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		
Autoignition Temperature	NOT AVAILABLE	**Decomposition Temperature**	NOT AVAILABLE
Partition Coefficient	NOT AVAILABLE	**Viscosity**	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to Avoid	Incompatible with oxidising agents (eg. hypochlorites), ethanol, acids (eg. hydrofluoric acid) and interhalogens (eg. chlorine trifluoride). Water contact may increase product temperature 2°C to 3°C.
Hazardous Decomposition Products	May evolve toxic gases if heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	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. Once water is added, an inhalation hazard is not anticipated. Hexavalent chromium compounds may be present in trace amounts in cement products. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).
Eye	Slightly corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible burns.
Inhalation	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).
Skin	Slightly corrosive. Contact with powder or wetted form may result in rash and dermatitis. May cause sensitisation by skin contact.
Ingestion	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.
Toxicity Data	QUARTZ (SILICA CRYSTALLINE) (14808-60-7) LCLo (Inhalation): 300 ug/m³/10 years (human) LDLo (Intratracheal): 200 mg/kg (rat) LDLo (Intravenous): 20 mg/kg (dog) TCLo (Inhalation): 16 000 000 particles/ft3/8 hours/17.9 years (human-fibrosis)

12. ECOLOGICAL INFORMATION

Environment	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.

13. DISPOSAL CONSIDERATIONS

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 for additional information.
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

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		

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	CEMENT CONTACT DERMATITIS: 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.

IARC - GROUP 1 - PROVEN HUMAN CARCINOGEN. This product contains an ingredient for which there is sufficient evidence to have been classified by the International Agency for Research into Cancer as a human carcinogen. The use of products known to be human carcinogens should be strictly monitored and controlled.

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.

ABBREVIATIONS:
ACGIH - American Conference of Industrial Hygienists.
ADG - Australian Dangerous Goods.
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.
HSNO - Hazardous Substances and New Organisms.
IARC - International Agency for Research on Cancer.
mg/m³ - Milligrams per Cubic Metre.
NOS - Not Otherwise Specified.
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.
STEL - Short Term Exposure Limit.
SWA - Safe Work Australia.
TWA - Time Weighted Average.

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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End of Report