



SAFETY DATA SHEET

Product Name CONCRETE ROOF TILES AND ROOF TILE ACCESSORIES**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Supplier Name BORAL CLAY & CONCRETE PRODUCTS
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Web Site <http://www.boral.com.au/>
Synonym(s) BORAL CONCRETE ROOF TILES AND ROOF TILE ACCESSORIES
Use(s) BUILDING APPLICATIONS • ROOFING • ROOFING MATERIALS
SDS Date 06 Sep 2011

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	>60%
HYDRATED PORTLAND CEMENT	Not Available	Not Available	10-30%
PIGMENT(S)	Not Available	Not Available	<10%
WATER	H2O	7732-18-5	<10%
ACRYLIC COPOLYMER	Not Available	Not Available	<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. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor. 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). Due to product form and application, ingestion is considered unlikely. 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	If spilt, collect and reuse where possible. As for dust, it is best cleaned up by vacuum device to avoid generating airborne dust. Wetting before sweeping up dust may assist in dust control.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids and foodstuffs. Ensure containers are adequately labelled.
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	
Silica, Crystalline Quartz	SWA (AUS)	--	0.1 mg/m ³	--	--

Biological Limits	No biological limit allocated.
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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.
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PPE	Wear cotton or leather gloves. If cutting or sanding with potential for dust generation, wear: dust-proof goggles and a Class P1 (Particulate) respirator.
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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	SOLID	Solubility (water)	INSOLUBLE
Odour	SLIGHT ODOUR	Specific Gravity	NOT AVAILABLE
pH	NOT AVAILABLE	% 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

Material to Avoid	Incompatible with oxidising agents and acids (eg. nitric acid).
Hazardous Decomposition Products	May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Low toxicity - irritant. Under normal conditions of use, this product is not anticipated to present a hazard unless product is cut, drilled or sanded with the generation of irritating dust. Use safe work practices to avoid dust generation - inhalation. Chronic exposure to crystalline silica may result in lung fibrosis (silicosis). Crystalline silica is classified as carcinogenic to humans (IARC Group 1).
Eye	Due to product form and nature of use, the potential for exposure is reduced. Product may only present a hazard if material is cut, ground or sanded with dust generation, which may result in irritation and lacrimation.
Inhalation	Exposure considered unlikely. An inhalation hazard is not anticipated unless cut, drilled or sanded with dust generation, which may result in irritation of the nose and throat. Crystalline silica is classified as carcinogenic to humans (IARC Group 1).
Skin	Low irritant. Prolonged or repeated exposure to dust may result in irritation and dermatitis.
Ingestion	Ingestion is considered unlikely due to product form.
Toxicity Data	QUARTZ (SILICA CRYSTALLINE) (14808-60-7) LCLo (Inhalation): 300 ug/m ³ /10 years (human) LDLo (Intratracheal): 200 mg/kg (rat) LDLo (Intravenous): 20 mg/kg (dog) TCLo (Inhalation): 16 000 000 particles/ft ³ /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.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal	Reuse where possible. No special precautions are required for this product.
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	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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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.

Product Name**CONCRETE ROOF TILES AND ROOF TILE ACCESSORIES**

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 ChemAlert 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 ChemAlert 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