1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: DESIGNER CERAMIC ROOF TILES AND ACCESSORIES
Synonyms: BORAL DESIGNER CERAMIC ROOF TILES AND ACCESSORIES ● TERRACOTTA ROOF TILES AND ACCESSORIES

1.2 Uses and uses advised against
Uses: ROOFING MATERIALS

1.3 Details of the supplier of the product
Supplier name: BORAL CLAY & CONCRETE PRODUCTS
Address: 251 Salmon Street, Port Melbourne, VIC, 3207, AUSTRALIA
Telephone: (03) 9981 2800
Fax: (03) 9214 2192
Website: www.boral.com.au

1.4 Emergency telephone numbers
Emergency: (03) 9981 2800

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

2.2 GHS Label elements
No signal word, pictograms, hazard or precautionary statements have been allocated.

2.3 Other hazards
The solid product as supplied is classified as non-hazardous under normal conditions and does not present an inhalation, ingestion, skin, or eye hazard. However, dust created when the product is cut, grinded and machined may contain crystalline silica some of which may be respirable (particles small enough to go into deep parts of the lung when breathed in).

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUARTZ (CRYSTALLINE SILICA)</td>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>10 to 70%</td>
</tr>
<tr>
<td>NON HAZARDOUS CLAY MINERALS</td>
<td>-</td>
<td>-</td>
<td>10 to 40%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye: (Dust exposure) Flush gently with running water, irrigating under eyelids. Seek medical attention if irritation develops.

Inhalation: (Dust exposure) If inhaled remove from contaminated area. Apply artificial respiration if not breathing.

Skin: (Dust exposure) Gently flush affected areas with water. Seek medical attention if irritation develops.

Ingestion: Due to product form and application, ingestion is considered unlikely. Do not induce vomiting. If symptoms persist, seek medical attention.

First aid facilities: None allocated.
4.2 Most important symptoms and effects, both acute and delayed
See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed
Treat 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.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
If spilt, collect and reuse where possible.

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
Ensure material is adequately labelled and protected from physical damage.

7.3 Specific end uses
No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (respirable dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>0.1</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls

<table>
<thead>
<tr>
<th>Engineering controls</th>
<th>Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Wet where possible. Maintain dust levels below the recommended exposure standard.</th>
</tr>
</thead>
</table>
PPE

- **Eye / Face**: If cutting or sanding with potential for dust generation, wear dust-proof goggles.
- **Hands**: Wear leather or cotton gloves.
- **Body**: Not required under normal conditions of use.
- **Respiratory**: If cutting or sanding with potential for dust generation, wear, at a minimum, a Class P1 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Appearance**: SOLID
- **Odour**: SLIGHT ODOUR
- **Flammability**: NON FLAMMABLE
- **Flash point**: NOT RELEVANT
- **Boiling point**: NOT AVAILABLE
- **Melting point**: NOT AVAILABLE
- **Evaporation rate**: NOT AVAILABLE
- **pH**: NOT AVAILABLE
- **Vapour density**: NOT AVAILABLE
- **Specific gravity**: NOT AVAILABLE
- **Solubility (water)**: INSOLUBLE
- **Vapour pressure**: NOT AVAILABLE
- **Upper explosion limit**: NOT RELEVANT
- **Lower explosion limit**: NOT AVAILABLE
- **Partition coefficient**: NOT AVAILABLE
- **Autoignition temperature**: NOT AVAILABLE
- **Decomposition temperature**: NOT AVAILABLE
- **Viscosity**: NOT AVAILABLE
- **Explosive properties**: NOT AVAILABLE
- **Oxidising properties**: NOT AVAILABLE
- **Odour threshold**: NOT AVAILABLE

10. STABILITY AND REACTIVITY

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
Polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible with strong acids (e.g. hydrofluoric acid).

10.6 Hazardous decomposition products
May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
**PRODUCT NAME**  DESIGNER CERAMIC ROOF TILES AND ACCESSORIES

**Acute toxicity**  
This product is expected to be of low toxicity. Ingestion is considered unlikely due to product form.

**Skin**  
Mechanical irritant. Prolonged or repeated contact may result in mild irritation due to mechanical action.

**Eye**  
Mechanical irritant. Due to product form and nature of use, the potential for exposure is reduced. Product may only present a hazard if material is cut, drilled or sanded with dust generation, which may result in mechanical irritation.

**Sensitisation**  
Not classified as causing skin or respiratory sensitisation.

**Mutagenicity**  
Not classified as a mutagen.

**Carcinogenicity**  
Adverse health effects, usually associated with long term exposure to high respirable crystalline silica quartz dust levels are not anticipated due to product form. This product may only present a hazard if rocks are cut or drilled with dust generation. Respirable crystalline silica quartz is classified as carcinogenic to humans (IARC Group 1).

**Reproductive**  
Not classified as a reproductive toxin.

**STOT - single exposure**  
Dust can be generated during cutting of the product. Dusts are mechanical irritants that may cause throat irritation.

**STOT - repeated exposure**  
Dusts are mechanical irritants that may cause throat irritation.

**Aspiration**  
Not applicable for solids.

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**  
The substance is inert there is no evidence of significant toxicity.

**12.2 Persistence and degradability**  
Being inorganic, the substance will not biodegrade.

**12.3 Bioaccumulative potential**  
The substance is inert and will not be absorbed and accumulate in tissues.

**12.4 Mobility in soil**  
No information provided.

**12.5 Other adverse effects**  
The main component/s of this product are not anticipated to cause any adverse effects to plants or animals.

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste disposal**  
Reuse where possible. Dispose of in accordance with local regulations.

**Legislation**  
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, IMDG OR IATA**

<table>
<thead>
<tr>
<th></th>
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<th>SEA TRANSPORT (IMDG / IMO)</th>
<th>AIR TRANSPORT (IATA / ICAO)</th>
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<td>None allocated.</td>
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<td><strong>14.2 Proper Shipping Name</strong></td>
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<td><strong>14.3 Transport hazard class</strong></td>
<td>None allocated.</td>
<td>None allocated.</td>
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<tr>
<td><strong>14.4 Packing Group</strong></td>
<td>None allocated.</td>
<td>None allocated.</td>
<td>None allocated.</td>
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</table>

**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

Poison schedule
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).

Classifications
Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Inventory listings
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
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.

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/m³ 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
### Revision history

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
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<tbody>
<tr>
<td>2.2</td>
<td>Standard SDS Review</td>
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<tr>
<td></td>
<td>Health &amp; Hygiene</td>
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<tr>
<td></td>
<td>Christopher Aebi</td>
</tr>
<tr>
<td></td>
<td>Occupational Hygienist</td>
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<td></td>
<td>Safety &amp; Dangerous Goods</td>
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<tr>
<td></td>
<td>John Scales</td>
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<td>HSE Advisor</td>
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<td>Environment &amp; Community</td>
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<tr>
<td></td>
<td>Andrew Gurnett</td>
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<td></td>
<td>National Environment Coordinator</td>
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<td></td>
<td>Product Custodian</td>
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<tr>
<td></td>
<td>Michael Morrissey</td>
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<tr>
<td></td>
<td>National Manufacturing Manager, Roofing and Masonry East</td>
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<tr>
<td>1.0</td>
<td>Initial SDS creation</td>
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### 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.

### Prepared by

Risk Management Technologies  
5 Ventnor Ave, West Perth  
Western Australia 6005  
Phone: +61 8 9322 1711  
Fax: +61 8 9322 1794  
Email: info@rmt.com.au  
Web: www.rmtglobal.com

[ End of SDS ]