1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: SAND

Synonym(s): MANUFACTURED SAND; NATURAL SAND; QUARRY DUST; LANDSCAPING; GARDENING APPLICATIONS; AGRICULTURAL USE

1.2 Uses and uses advised against

Use(s): INDUSTRIAL APPLICATIONS

1.3 Details of the supplier of the safety data sheet

Supplier name: BORAL CONSTRUCTION MATERIALS LTD.
Address: Level 3, 40 Mount Street, Nth Sydney, NSW, 2060, AUSTRALIA
Telephone: (02) 9220 6300
Email: sds@rmt.com.au
Website: www.boral.com.au

1.4 Emergency telephone number(s)

Emergency: 1800 555 477 (8am – 5pm WST)
Emergency (A/H): 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

2.1 Classification of the substance or mixture

GHS classifications: Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2

2.2 Label elements

Signal word: WARNING

Pictograms:

Hazard Statement(s)
H373: May cause damage to organs (lungs) through prolonged or repeated exposure (inhalation).

Prevention Statement(s)
P260: Do not breathe dust.

Response Statement(s)
P314: Get medical advice/attention if you feel unwell.

Storage Statement(s)
None Allocated

Disposal Statement(s)
P501: Dispose of contents/container in accordance with relevant regulations.
2.3 Other hazards
Not applicable.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Identification</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA SAND (INCLUDING CRYSTALLINE SILICA)</td>
<td>CAS: 14808-60-7 EC: 238-878-4</td>
<td>Up to 100%</td>
</tr>
</tbody>
</table>

Notes:
1. This product may contain small amounts of mineral and organic materials.
2. Although rare, some Sand may contain trace amounts (<0.01%) of Respirable Elongated Mineral Particulates. The levels detected are determined to be well below the threshold level.

4. FIRST AID MEASURES

4.1 Description of 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 Poisons Information Centre (PIC) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.

First aid facilities
Eye wash facilities and safety shower are recommended.

4.2 Most important symptoms and effects, both acute and delayed
Chronic exposure to crystalline silica may result in lung fibrosis (silicosis). Principal symptoms of silicosis are cough and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1).

4.3 Immediate medical attention and special treatment needed
Treat symptomatically.

5. FIREFIGHTING 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. Silica Sand is an extinguishing medium and fire retardant, used to put out small fires.

5.3 Advice for firefighters
Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

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 this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.
6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, keep moist and place in suitable containers for disposal or reapplication. Within enclosed environments clean spill site using wet methods or an approved industrial vacuum device. Avoid generating dust.

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 SDS. The use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating.

7.2 Conditions for safe storage, including any incompatibilities
All stockpiles and dumps should be inspected.

7.3 Specific end use(s)
Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Exposure standards

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUARTZ (CRYSTALLINE SILICA)</td>
<td>SWA (AUS)</td>
<td>ppm</td>
<td>mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--</td>
<td>0.1</td>
</tr>
</tbody>
</table>

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

8.2 Exposure controls
Engineering Controls
Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain Quartz (Crystalline Silica) levels below the recommended exposure standard.

PPE
Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye / Face
Wear safety glasses or dust-proof goggles when handling material to avoid contact with eyes.

Hand
Where hands are subject to "dry skin" or "skin tears", wear PVC, rubber or cotton gloves.

Body
Wear long sleeved shirt and full-length trousers.

Respiratory
Where an inhalation risk exists wear a Class P1 (Particulate) respirator, dependent on a site specific risk assessment.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>GRANULAR SAND</td>
</tr>
<tr>
<td>Odour</td>
<td>ODOURLESS</td>
</tr>
<tr>
<td>Flammability</td>
<td>NON FLAMMABLE</td>
</tr>
<tr>
<td>Flash point</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Boiling point</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Melting point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>INSOLUBLE</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>NOT EXPLOSIVE</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>NON OXIDISING</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>NOT AVAILABLE</td>
</tr>
</tbody>
</table>

9.2 Other information

Not applicable

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 will not occur.

10.4 Conditions to avoid
No known conditions to avoid.

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

10.6 Hazardous decomposition products
This material is not expected to decompose to form hazardous products.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>No known toxicity data is available for this product. Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Skin</td>
<td>Contact may result in mechanical irritation, redness, rash and dermatitis.</td>
</tr>
<tr>
<td>Eye</td>
<td>Contact may result in mechanical irritation, lacrimation and redness.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>This product is not known to be a skin or respiratory sensitizer.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Insufficient data available to classify as a mutagen.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>This product contains crystalline silica which is classified as carcinogenic to humans (IARC Group 1). However, there is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk.</td>
</tr>
</tbody>
</table>
Product name: Sand

Reproductive: Insufficient data available to classify as a reproductive toxin.

STOT – single exposure: Not classified as causing organ effects from single exposure.

STOT – repeated exposure: Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are cough and breathlessness.

Aspiration: This product is not expected to present an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
The main component/s of this product are not anticipated to cause any adverse effects to the environment.

12.2 Persistence and degradability
Product is persistent and non-degradable.

12.3 Bioaccumulative potential
This product is not expected to bioaccumulate.

12.4 Mobility in soil
A low mobility would be expected in a landfill situation.

12.6 Other adverse effects
Prevent contamination of drains or waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal: Reuse or recycle where possible. Alternatively, ensure product is kept moist to prevent dust generation and dispose of within 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, IMDG OR IATA

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard classes</th>
<th>Transport hazard classes</th>
<th>Transport hazard classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

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).
### Product name
Sand

#### Classifications
Xn; Harmful

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

#### Safety phrases
S22: Do not breathe dust.
S45: In case of accident or if you feel unwell seek medical advice immediately.

#### Inventory listing(s)

**AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
All components are listed on AICS, or exempt.

### 16. OTHER INFORMATION

#### 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.
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.
STOT-RE - Specific target organ toxicity (repeated exposure)
STOT-SE - Specific target organ toxicity (single exposure)
SWA - Safe Work Australia.
TWA - Time Weighted Average.

#### 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’).

The information presented herein is based on data considered to be accurate as of the date of preparation of this SDS. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assume by the vendor for any damage or injury resulting from abnormal use, without a risk assessment for safe use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the products.

This Safety Data Sheet (SDS) applies only to the formulated material as supplied by Boral. It does not apply where the formulation has been altered. In this case a new SDS may be required to reflect the modified material. Contact Boral for further information.

Printed documents are uncontrolled. Refer to www.boral.com.au regularly for a more recent copy of the SDS where it exists.

#### Prepared by
Risk Management Technologies
5 Ventnor Avenue, West Perth, Western Australia, 6005.
Phone: +61 8 9322 1711
Facsimile: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

#### Revision History
Revision Number: v1.0
Description: Initial Compilation

**SDS Date:** 28 July 2014

End of Report