1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: HYDRATED LIME
Synonym(s): BLUE CIRCLE GENERAL PURPOSE LIME • BLUE CIRCLE HYDRATED LIME • BLUE CIRCLE PLASTERLIME • CALCIUM HYDRATE • CALCIUM HYDROXIDE • GENERAL PURPOSE LIME • LIME HYDRATE • PLASTER LIME • PREMIUM LIME • SLAKED LIME • ADELAIDE BRIGHTON HYDRATED LIME

1.2 Uses and uses advised against
Use(s): BINDING AGENT • FILLER • MINERAL PROCESSING • MORTAR • NEUTRALISING AGENT • PH CONTROL • REAGENT • SOIL STABILISATION • WATER TREATMENT

1.3 Details of the supplier of the product
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: http://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

2.1 Classification of the substance or mixture
CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
GHS classification(s): Serious Eye Damage / Eye Irritation: Category 1
Skin Corrosion/Irritation: Category 2
Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

2.2 Label elements
Signal word: DANGER
Pictogram(s):

Hazard statement(s)
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Prevention statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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>CALCIUM HYDROXIDE</td>
<td>1305-62-0</td>
<td>215-137-3</td>
<td>&gt;88%</td>
</tr>
<tr>
<td>QUARTZ (CRYSTALLINE SILICA)</td>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>&lt;3%</td>
</tr>
<tr>
<td>CALCIUM OXIDE</td>
<td>1305-78-8</td>
<td>215-138-9</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>CALCIUM CARBONATE</td>
<td>471-34-1</td>
<td>207-439-9</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>ALUMINIUM OXIDE</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>IMPURITIES</td>
<td>-</td>
<td>-</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>MAGNESIUM HYDROXIDE</td>
<td>1309-42-8</td>
<td>215-170-3</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>MAGNESIUM OXIDE</td>
<td>1309-48-4</td>
<td>215-171-9</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>IRON OXIDE (FE2O3)</td>
<td>1309-37-1</td>
<td>215-168-2</td>
<td>&lt;0.5%</td>
</tr>
</tbody>
</table>

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. If available, immediately flush eyes with Diphoterine® solution. The use of Diphoterine® has been shown to significantly reduce the risk of permanent injury. It is essential that the Diphoterine® is used as quickly as possible (ie. within 10 seconds of contact with lime) in order to obtain the maximum benefit from its absorbent and neutralising properties.

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 available, immediately flush skin and hair with Diphoterine® solution.

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.

First aid facilities: Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

Irritating to the eyes, skin and respiratory system, with possible burns.

4.3 Immediate medical attention and special treatment needed

Treat as for moderate to strong alkali and 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. Clear area of all unprotected personnel. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then collect and place in suitable containers for reuse or disposal. 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 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
Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

7.3 Specific end use(s)
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>Aluminium oxide (a)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Calcium carbonate (Limestone, Marble, Whiting)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Calcium hydroxide</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Iron oxide fume (Fe2O3) (as Fe)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Magnesium oxide (fume)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<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

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.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>FINE WHITE POWDER</td>
</tr>
<tr>
<td>Odour</td>
<td>ODORLESS</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>580°C</td>
</tr>
<tr>
<td>Melting point</td>
<td>580°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>13</td>
</tr>
<tr>
<td>Vapour density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>2.1 - 2.3</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>1.6 g/L</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>580°C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>NOT AVAILABLE</td>
</tr>
</tbody>
</table>

9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>450 - 500 kg/m³ (Bulk)</td>
</tr>
</tbody>
</table>

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
Avoid contact with incompatible substances.

10.5 Incompatible materials
Incompatible (violently) with acids (e.g. nitric acid), maleic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropane and phosphorus. Calcium hydroxide, or hydrated lime, is already neutralised and is not expected to undergo oxidation.

10.6 Hazardous decomposition products
May evolve calcium oxides when heated to decomposition.
11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No known toxicity data is available for this product. Based on available data, the classification criteria are not met.

Skin
Irritating to the skin. Contact may result in irritation, redness, pain, rash, dermatitis and possible skin burns.

Eye
Irritating to the eyes. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

Sensitization
This product is not known to be a skin or respiratory sensitizer.

Mutagenicity
Insufficient data available to classify as a mutagen.

Carcinogenicity
Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, there is insufficient respirable silica in this product to be classified as a carcinogen.

Reproductive
Insufficient data available to classify as a reproductive toxin.

STOT – single exposure
Irritating to the respiratory system. Over exposure to dust may result in severe mucous membrane irritation of nose and throat, coughing and bronchitis.

STOT – repeated exposure
Chronic exposure to respirable silica may result in pulmonary fibrosis (silicosis). However, given the low levels present, over exposure is not anticipated.

Aspiration
This product does not present an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
The aquatic toxicity of calcium hydroxide is due to its alkalinity.

12.2 Persistence and degradability
Neutralised to calcium carbonate by absorption of atmospheric carbon dioxide and is not degraded by oxidation.

12.3 Bioaccumulative potential
Calcium hydroxide does not bioaccumulate in the environment.

12.4 Mobility in soil
Not available, but considered low.

12.5 Other adverse effects
No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal
Neutralise with dilute acid (e.g. 3 mol/L hydrochloric acid) or similar. For small amounts, absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).

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></th>
<th>LAND TRANSPORT (ADG)</th>
<th>SEA TRANSPORT (IMDG / IMO)</th>
<th>AIR TRANSPORT (IATA / ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN Number</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.3 Transport hazard class</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards
No information provided

14.6 Special precautions for user
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.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard codes
Xi Irritant

Risk phrases
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.

Safety phrases
S22 Do not breathe dust.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S38 In case of insufficient ventilation, wear suitable respiratory equipment.

Inventory listing(s)
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 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: 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.

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
GHS Globally Harmonized System
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>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>Converted to GHS</td>
</tr>
<tr>
<td>1.0</td>
<td>Initial Release</td>
</tr>
</tbody>
</table>
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 assumed 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 Cement. 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 Cement 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

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Fax: +61 8 9322 1794
Email: info@rmt.com.au

Revision: 2
SDS date: 21 January 2015

[ End of SDS ]