



MSDS



Material Safety Data Sheet

PRODUCT NAME HYDRATED LIME (BCSC)

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name BLUE CIRCLE SOUTHERN CEMENT LIMITED
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Synonym(s) LIME HYDRATE • SLAKED LIME • PLASTER LIME • CALCIUM HYDROXIDE • CALCIUM HYDRATE • GENERAL PURPOSE LIME

Use(s) AGRICULTURAL LIMING • BINDER FOR MASONRY • NEUTRALISING AGENT • PH CONTROL • SOIL STABILISATION • WATER TREATMENT

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No.	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
CALCIUM HYDROXIDE	Ca-O-H2	94-98%	1305-62-0
MAGNESIUM OXIDE	Mg-O	<1%	1309-48-4
SILICA, CRYSTALLINE - QUARTZ	Si-O2	<1%	14808-60-7
CALCINED CLAY	Not Available	<5%	Not Available
CALCIUM CARBONATE	Ca-CO3	<2%	1317-65-3
CALCIUM OXIDE	Ca-O	<1%	1305-78-8
MAGNESIUM HYDROXIDE	H2-Mg-O2	<1%	1309-42-8

4. FIRST AID MEASURES

Eye Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.

Inhalation If over exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

Skin Remove contaminated clothing and gently flush affected areas with water. Seek medical attention if irritation develops. Launder clothing before reuse.

Ingestion DO NOT induce vomiting. Immediately wash out mouth with water, and then give water to drink. Seek medical attention.

Advice to Doctor Treat symptomatically

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5. FIRE FIGHTING MEASURES

Flammability	Non flammable. No fire or explosion hazard exists.
Fire and Explosion	Non flammable. No fire or explosion hazard exists.
Extinguishing	Non flammable.
Hazchem Code	None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt (bulk), contact emergency services if appropriate. Wear dust-proof goggles, PVA/rubber gloves, a Class P1 (Particulate) respirator (where an inhalation risk exists), coveralls and rubber boots. Clear area of all unprotected personnel. Prevent spill entering drains or waterways. Collect and place in sealable containers for disposal or reuse. Avoid generating dust.
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7. STORAGE AND HANDLING

Storage	Store in cool, dry, well ventilated area, removed from moisture, oxidising agents (eg. hydrogen fluoride, phosphorus oxide), acids, ethanol, interhalogens (eg. chlorine trifluoride) and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use. Also store removed from maleic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropene and phosphorus.
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

Ventilation	Do not inhale dust/ powder. Use with adequate natural ventilation. Where a dust inhalation hazard exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.
Exposure Standards	<p>CALCIUM HYDROXIDE (1305-62-0) ES-TWA: 5 mg/m³ WES-TWA: 5 mg/m³</p> <p>MAGNESIUM OXIDE (1309-48-4) ES-TWA: 10 mg/m³ (fume) ES-TWA#: 10 mg/m³ Inspirable dust WES-TWA: 10 mg/m³</p> <p>SILICA, CRYSTALLINE - QUARTZ (14808-60-7) ES-TWA: 0.1 mg/m³ (Silica Quartz, respirable, NOHSC) ES-TWA#: 0.1 mg/m³ (QLD); 0.15 mg/m³ (NSW) WES-TWA: 0.2 mg/m³</p> <p>CALCIUM CARBONATE (1317-65-3) ES-TWA: 10 mg/m³ WES-TWA: 10 mg/m³</p> <p>CALCIUM OXIDE (1305-78-8) ES-TWA: 2 mg/m³ (Peak level) WES-TWA: 2 mg/m³</p>
PPE	Wear dust-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Class P1 (Particulate) Respirator. When using large quantities or where heavy contamination is likely, wear coveralls. At high dust levels, wear a Class P3 (Particulate) respirator or a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	FINE WHITE POWDER	Solubility (water)	1.6 g/L
Odour	ODOURLESS	Specific Gravity	2.1 - 2.3
pH	13	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Melting Point	580°C	Upper Explosion Limit	NOT RELEVANT
Boiling Point	580°C	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE	Autoignition Temperature	NOT AVAILABLE
Density	350 - 600 kg/m3 (Bulk)	Decomposition Temperature	580°C

10. STABILITY AND REACTIVITY

Reactivity	Incompatible with oxidising agents (eg. phosphorus oxide, hydrogen fluoride), ethanol, interhalogens (eg. chlorine trifluoride) and acids. Also incompatible with maleic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropene and phosphorus.
Decomposition Products	May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Corrosive. Use safe work practices to avoid eye - skin contact and dust generation-inhalation. Once water is added, an inhalation hazard is not anticipated. Chronic respiratory effects are not anticipated with over exposure at high levels due to the immediate irritant and/or corrosive effects. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). Crystalline silica can cause silicosis (lung disease) with chronic over exposure, however due to low levels present and product application, adverse health effects associated with this ingredient are greatly reduced.
Eye	Corrosive. Severe irritant upon contact with powder/ dust. Over exposure may result in pain, redness, corneal burns and ulceration with possible permanent damage.
Inhalation	Corrosive. Over exposure to powder - dust (when mixing) may result in severe mucous membrane irritation of nose and throat, coughing and bronchitis at high levels.
Skin	Corrosive. Prolonged and repeated contact with powder or wetted form may result in skin rash and dermatitis.
Ingestion	Corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.
Toxicity Data	CALCIUM HYDROXIDE (1305-62-0) LD50 (Ingestion): 7300 mg/kg (mouse) SILICA, CRYSTALLINE - QUARTZ (14808-60-7) Carcinogenicity: Classified as a human carcinogen (IARC Group 1) MAGNESIUM HYDROXIDE (1309-42-8) LD50 (Ingestion): 8500 mg/kg (rat, mouse)

12. ECOLOGICAL INFORMATION

Environment	The aquatic toxicity of calcium hydroxide is due to its alkalinity. It is neutralised to calcium carbonate by absorption of atmospheric carbon dioxide and is not degraded by oxidation. Calcium hydroxide does not bioaccumulate in the environment.
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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

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Shipping Name None Allocated

UN No. None Allocated

DG Class None Allocated

Subsidiary Risk(s) None Allocated

Pkg Group None Allocated

Hazchem Code None Allocated

EPG None Allocated

15. REGULATORY INFORMATION

Poison Schedule AICS 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).
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.

ABBREVIATIONS:

mg/m³ - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

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.

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.

COLOUR RATING SYSTEM: RMT has assigned all Chem Alert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Report Status This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

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 MSDS, 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 MSDS.

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End of Report