

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name QUICKLIME (BLUE CIRCLE SOUTHERN)

Synonyms BURNT LIME, CALCIUM OXIDE, QUICK LIME, QUICKLIME (FORMERLY), RK LIME, UNSLAKED LIME.

Uses BINDING AGENT, MANUFACTURING, WATER CLARIFIER, PH MODIFIER, NEUTRALISING AGENT.

Supplier Name BLUE CIRCLE SOUTHERN CEMENT LIMITED

Address Clunies Ross Street, Prospect NSW, 2148, AUSTRALIA

Telephone (02) 9033 4000

Fax (02) 9033 4055

Emergency 1800 033 111

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
MAGNESIUM OXIDE	Mg-O	<1%	1309-48-4
SILICA, CRYSTALLINE - QUARTZ	Si-O2	<1%	14808-60-7
CALCIUM OXIDE	Ca-O	90 - 95%	1305-78-8
CLAY		<5%	Not Available
CALCIUM CARBONATE	Ca-C-O3	<5%	1317-65-3

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 For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

Advice To Doctor Treat symptomatically.

First Aid Facilities Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

Flammability Non flammable. May generate heat in contact with water.

Fire and Explosion Non flammable. However may generate heat upon contact with water; sufficient heat may be generated to ignite surrounding combustible materials. Evacuate area in fire situation and contact emergency services. DO NOT USE WATER; use dry chemical or carbon dioxide.

Extinguishing Non flammable. Do not use water for fire fighting as contact will increase heat generation. Use dry agent or carbon dioxide extinguishers only.

Colour Rating
AMBER

5. FIRE FIGHTING MEASURES cont.

Hazchem Code

4W

6. ACCIDENTAL RELEASE MEASURES

Spillage If spilt (bulk), contact emergency services if appropriate. Wear dust-proof goggles, PVC/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.

7. HANDLING AND STORAGE

Handling Use safe work practices to avoid eye or skin contact and inhalation. Observe good personal hygiene. Prohibit eating, drinking and smoking in contaminated areas. Wash hands before eating. Remove contaminated clothing and protective equipment before entering eating areas.

Storage Store in cool, dry area, removed from water/moisture, hydrofluoric acid, phosphorus pentoxide and foodstuffs. Ensure packages or storage tanks are adequately labelled, protected from physical damage and sealed when not in use. Caution: Swells when moist and may burst containers. Materials containing water of crystallisation (eg. aluminium or copper sulfate) should NOT be stored in the same containers as those previously used to store Quicklime.

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

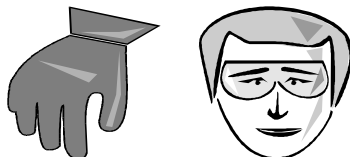
MAGNESIUM OXIDE (1309-48-4)
ES-TWA : 10 mg/m3 (fume)

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)

CALCIUM OXIDE (1305-78-8)
ES-TWA : 2 mg/m3 (Peak level)

CALCIUM CARBONATE (1317-65-3)
ES-TWA : 10 mg/m3

PPE Wear dust-proof goggles and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear coveralls. Where an inhalation risk exists, wear a Class P1 (Particulate) Respirator. At high dust levels, wear a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter or a Class P3 (Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: WHITE LUMPS, GRANULES OR POWDER
Odour: ODOURLESS
pH: 13

Colour
Rating
AMBER

9. PHYSICAL AND CHEMICAL PROPERTIES cont.

Vapour Pressure: NOT AVAILABLE
Vapour Density: NOT AVAILABLE
Boiling Point: NOT AVAILABLE
Melting Point: > 2500 C
Evaporation Rate: NOT AVAILABLE
Solubility (water): 1.6 g/L (Approximately)
Specific Gravity: 3.1 - 3.2
% Volatiles: NOT AVAILABLE
Flammability: NON FLAMMABLE
Flash Point: NOT RELEVANT
Upper Explosion Limit: NOT RELEVANT
Lower Explosion Limit: NOT RELEVANT
Autoignition Temperature: NOT AVAILABLE

10. STABILITY AND REACTIVITY

Reactivity Incompatible with hydrofluoric acid (violently) and phosphorus pentoxide. Reacts (potentially vigorously) with water generating heat and evolving calcium hydroxide. Also violently incompatible with boron oxide and calcium chloride, boron trifluoride, chlorine trifluoride, fluorine, hydrogen fluoride, phosphorus pentoxide and water.

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. Chronic exposure to crystalline silica may cause lung fibrosis (silicosis), however due to the low levels of crystalline silica in this product, chronic health effects are not anticipated with normal use. Crystalline silica is classified as carcinogenic to humans (IARC Group 1).

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.

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.

13. DISPOSAL CONSIDERATIONS

Waste Disposal For small amounts; VERY SLOWLY, hydrate (add water) and then neutralise with dilute hydrochloric acid (eg. 6N HCl) to pH of 7-8. Dilute and flush to sewer or landfill. For large amounts material can be readily recycled. Contact the manufacturer for additional information.

Legislation Dispose of in accordance with relevant local legislation.

Colour Rating
AMBER

14. TRANSPORT INFORMATION

Transport	Class 8 Corrosive. Do not transport with chemicals of class; 1 (Explosives), 4.3 (Dangerous When Wet), 5.1 (Oxidising agents), 5.2 (Organic peroxides), 6 (Toxics - where the Toxic is a cyanide and the Corrosive is an acid), 7 (Radioactives), 8 (where products are acid/alkali) and foodstuffs.
UN Number	1910
Shipping Name	CALCIUM OXIDE
DG Class	8
Subsidiary Risk(s)	None Allocated
Packing Group	III
Hazchem Code	4W

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).
------------------------	---

16. OTHER INFORMATION

Additional Information The clay contained in this product is described as calcined clays and shales.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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.

COLOUR RATING SYSTEM: Chem Alert reports are assigned a colour rating of Green, Amber or Red for the 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.

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. Information provided by Risk Management Technologies is summarised for ease of use. Additional technical information is available by calling +61 8 9322 1711.

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.

ABBREVIATIONS:

mg/m³ - Milligrams per cubic metre
ppm - Parts Per Million
TWA/ES - Time Weighted Average or Exposure Standard.

**Colour
Rating
AMBER**

16. OTHER INFORMATION cont.

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.

Report Reviewed 14th June 2005

Date Printed 27th July 2005

Report Status Chem Alert reports are compiled as an independent source of information by RMT's scientific department, based on the latest chemical and toxicological research and, where appropriate, in compliance with relevant standards, guidance notes and legislation. Where available the manufacturer's original MSDS is also provided to Chem Alert subscribers as a scanned image for their convenience. In many instances Chem Alert reports are compiled on behalf of manufacturers in which case they serve as the "Manufacturer's MSDS" and are clearly identified as such on the relevant reports.

Prepared By Risk Management Technologies
5 Ventnor Avenue, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Web: www.rmt.com.au

**Colour
Rating
AMBER**