

SAFETY DATA SHEET

Hydrated Lime

Section 1: Identification of the Material and Supplier

Company Details

Cement Australia Pty Limited

ABN 75 104 053 474

18 Station Avenue
Darra, Queensland 4076**Tel:** 1300 CEMENT (1300 236 368)**Fax:** 1800 CEMENT (1800 236 368)**Website:** www.cementaustralia.com.au

Emergency Contact Number:

Contact Person: Technical Manager
Telephone: 1300 CEMENT (1300 236 368 - Business Hours) or
Poisons Information Centre 13 11 26

Manufacturing Plants

Tamaree: 276 Tamaree Rd, Gympie QLD 4570, Australia**Attunga:** 220 Garthowen Rd, Attunga NSW 2345, Australia**Galong:** 342 Eubindal Rd, Galong NSW 2585, Australia

Product

Name: Hydrated Lime**Other Names:** Slaked Lime, Calcium Hydrate, Lime Hydrate, Calcium Hydroxide, Builders Lime, Garden Lime, Plasterers Lime**Use:** Hydrated lime is used in water and sewage treatment, construction, soil stabilisation, environmental applications, etc.

Section 2: Hazards Identification

Classified as Hazardous according to the Safe Work Australia guidelines for Globally Harmonised System of Classification and Labelling of Chemicals (GHS).**Not classified as Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)**Skin Corrosion/irritation: Category 2****Eye Damage/irritation: Category 1****STOT Repeated Exposure: Category 2****Carcinogenicity category 1A**

Hazard Statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H350 May cause cancer by inhalation.

H373 May cause damage to organs through prolonged or repeated exposure by inhalation.



DANGER

For more information call **1300 CEMENT** (1300 236 368)
or visit www.cementaustralia.com.au*Mix it with the best.*

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P305+P351+P338 Rinse Eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P308+P313 If exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents and container to an approved waste disposal plant

Section 3: Composition/Information on Ingredients

Chemical Entity	Proportion	CAS Number
Water	0.1 - 2.5%	7732-18-5
Calcium Hydroxide	90 - 95%	1305-62-0
Magnesium Hydroxide	0.5 - 1.0%	1309-42-8
Crystalline Silica (Quartz)	<1%	14808-60-7
Total respirable silica	Below reporting limits	14808-60-7
Silicon Dioxide	0.5 - 2%	7631-86-9
Aluminium Dioxide	0 - 2%	1344-28-1
Iron Oxide	0 - 0.4%	1309-37-1

Section 4: First Aid Measures

Swallowed:	Wash mouth and lips with copious amounts of water, and give limited amounts of milk or water to drink (150ml). Do not induce vomiting. Seek medical attention.
Eyes:	Hold eyes open and flush with copious amounts of water for at least 10 minutes. Seek medical attention.
Skin:	Immediately remove all contaminated clothing, including footwear. Wash material off skin, using plenty of water preferably under shower. If effects persist, seek medical attention.
Inhaled:	Remove to fresh air away from the dusty area. Seek medical attention.
First Aid Facilities:	Eye wash station.
Advice to Doctor:	Treat symptomatically as for poisoning with strong alkali. Contact Poisons Information Centre: Tel 13 11 26 (Australia wide)

Section 5: Fire Fighting Measures

Fire/Explosion Hazard:	Hydrated Lime is non-combustible. Under fire conditions this product may emit toxic and/or irritating fumes and gases. The product decomposes with loss of water at approx. 5800°C to form calcium oxide (quicklime).
Hazchem Code:	None allocated
Flammability:	Not flammable
Extinguishing Media:	Water
Hazards from Combustion Products:	None
Danger of violent reaction or explosion:	Violent reactions with maleic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropane and phosphorus.
Evacuate	No

Section 6: Accidental Release Measures

Spills:	Increase ventilation. Evacuate all unprotected personnel. PPE must be worn to clean up spillages with broom, shovel, or vacuum equipment. Keep out of sewer, storm water drains, and natural waterways.
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Section 7: Handling and Storage

Handling:	When supplied in bags these need to be handled in accordance with manual handling Code of Practice.
Storage:	Hydrated Lime should be stored in a cool protected place away from moisture, strong oxidants or acids and to minimize dust emissions. Storage in steel or concrete bins and silos, or plastic lined bags, is appropriate.

Section 8: Exposure Controls/Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Calcium hydroxide TWA: 5 mg/m³

Crystalline Silica (Quartz)TWA: 0.05 mg/m³ (i.e. the average airborne concentration of a substance when calculated over a normal eight hour working day, for a five-day week.)

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure, then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Eye Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations.

Hand Protection

Wear gloves of impervious material such as PVC and conforms to relevant regulations.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9: Physical and Chemical Properties

Appearance:	White to off-white powder
Odour:	No odour
Boiling/Melting Point:	Decomposes to water and calcium oxide at 580°C
Vapour Pressure:	Not applicable
Specific Gravity:	2.4 – 2.8
Bulk Density:	450-800kg/m ³
Flash Point:	Not applicable
Flammability Limits:	Non-combustible
Solubility In Water:	Approx. 1.6g/L @20°C
pH:	Approximately 12
Particle Size:	9% < 100µm

Section 10: Stability and Reactivity

Reactivity:	Reacts with incompatible materials.
Chemical Stability:	Stable under normal conditions of storage and handling.
Avoid:	Extremes of temperature, dust accumulation and direct sunlight. Moisture.
Incompatible materials:	Oxidising agents, strong acids, nitro-organic compounds, maleic anhydride and phosphorus.
Decomposition Products:	Thermal decomposition may result in the release of toxic and/or irritating fumes and gases. Decomposes with loss of water at approx. 580°C to form calcium oxide (quicklime).
Hazardous reactions:	Reacts exothermically with acids. Absorbs carbon dioxide from air. Attacks aluminium, lead and brass in the presence moisture. Hazardous Polymerization Will not occur.

Section 11: Toxicological Information

Acute Toxicity – Oral:	For calcium hydroxide: LD50 (rat): 7,340 mg/kg
Ingestion:	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Inhalation:	May cause respiratory irritation. Inhalation of product dust can cause irritation of the nose, throat and respiratory system. Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may

aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema and asthma.

Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure.

Skin: Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye: Causes serious eye damage. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

For calcium hydroxide - Eye Irritation (rabbit): Severe (Standard Draize Test, 10 mg)

Germ cell mutagenicity: Not considered to be a mutagenic hazard.

Carcinogenicity: May cause cancer. Classified as a Known or presumed human carcinogen.

May cause cancer by inhalation. Respirable crystalline silica is classified by International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1)

Reproductive Toxicity: Not considered to be toxic to reproduction.

STOT-single exposure: Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure by inhalation.

Aspiration Hazard Not expected to be an aspiration hazard.

Section 12: Ecological Information

Ecotoxicity: Because of the high pH of this product, it would be expected to produce significant acute ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and Degradability: Product has no bioaccumulation or food chain toxicity potential.

Mobility: Soluble in water (as hydroxide) to form alkaline solution. Low mobility in most ground conditions.

Section 13: Disposal Considerations

Material should be recycled or neutralised with dilute hydrochloric acid to a pH of 6-9, before disposal in accordance with local authority guidelines. Keep out of sewer, storm water drains, and natural waterways.

Section 14: Transport Information

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN Number:	None allocated
Proper Shipping Name:	None allocated
Class and Subsidiary Risk:	None allocated
Packing Group:	None allocated
Special precautions for user:	Avoid generating and breathing dust
Hazchem Code:	None allocated

