

Lime

SECTION 1. IDENTIFICATION

Product Identifier	Lime
Other Means of Identification	Lime
Product Family	Calcium Hydroxide
Recommended Use	Drilling Fluid Additive.
Supplier	Bri-Chem Supply Ltd., Bay 4, 5510 - 3rd Street SE, Calgary, Alberta, T2H 1J9, Bri-Chem Supply, 403-252-5904, www.brichemsupply.com
Emergency Phone No.	ChemTrec, (800) 424-9300, 24/7
SDS No.	0867

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 1; Carcinogenicity - Category 1A; Specific target organ toxicity (single exposure) - Category 3

GHS Label Elements



Signal Word:

Danger

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

May cause cancer through inhalation

Precautionary Statement(s):

Obtain special instructions before use.

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

Keep container tightly closed

Wash hands and skin thoroughly after handling.

Do not breathe dust

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area.

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Calcium hydroxide	1305-62-0	>85	
Silica, quartz	14808-60-7	<1	

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SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move source of dust, or move victim to fresh air. Obtain medical attention immediately. If victim is not breathing, give artificial respiration.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Seek medical attention immediately.

Ingestion

If victim is conscious, give 300 ml (10 oz) of water, followed by diluted vinegar (1 part vinegar to 2 parts water), or fruit juice to neutralize the alkali. Do not induce vomiting. Contact a physician immediately.

First-aid Comments

If exposed or concerned, get medical advice/attention.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled:

Can cause severe irritation of the nose and throat.

If on skin:

May cause moderate to severe irritation.

If in eyes:

May cause moderate to severe irritation.

If swallowed:

Can irritate the mouth, throat and stomach.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Calcium hydroxide does not burn. Use extinguishing media appropriate to surrounding fire conditions.

Specific Hazards Arising from the Chemical

Non-flammable.

Heat produced by reaction with strong acids can generate steam and pressure.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Pick-up spill in a manner which does not create dust and place in a container suitable for reclamation or disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid generating dusts. Prevent uncontrolled release of product.

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

Store in an area that is: well-ventilated, cool, dry, separate from incompatible materials (see Section 10: Stability and

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Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(Calcium hydroxide) oSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. 15 mg/m³ (total) 5 mg/m³ (resp)

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. 5 mg/m³

O. Reg. 833 TW AEV: 5 mg/m³. (Silica, quartz) oSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. 10 mg/m³ (total dust) 3.3 mg/m³ (respirable)

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. 0.025 mg/m³ (respirable) o. Reg. 845 0.1 mg/m³.

Appropriate Engineering Controls

Use a local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Do not breathe in this product. Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Particle Size	Not available
Odour	Odourless
Odour Threshold	Not applicable
pH	12.4
Melting Point/Freezing Point	Not applicable (melting); Not applicable (freezing)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	2.3 - 2.4
Solubility	0.165 g/100 mL (Slightly soluble) in water; Mildly soluble in acids (e.g. acetic acid).
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	1076 °F (580 °C)
Viscosity	Not applicable (kinematic)
Other Information	
Physical State	Solid
Molecular Formula	Not available

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Molecular Weight	Ca(OH) ₂ = 74.096
Surface Tension	Not applicable
Critical Temperature	Not applicable
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not applicable
Saturated Vapour Concentration	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

No; Absorbs carbon dioxide from air to form calcium carbonate.

Possibility of Hazardous Reactions

Reacts with acids to form calcium salts while generating heat. Reacts with carbon dioxide in air to form calcium carbonate.

Conditions to Avoid

Incompatible materials. Boron tri-fluoride, chlorine tri-fluoride, ethanol, fluorine, hydrogen fluoride, phosphorous pentoxide and acids (violent reaction with generating heat and possible explosion in confined area).

Incompatible Materials

Highly reactive. Reacts violently with strong acids. Reacts chemically with acids and many other compounds and chemical elements to form calcium-based compounds. Explosive when mixed with nitro-organic compounds.

Hazardous Decomposition Products

Calcium oxide (CaO).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Oral LD50 7340 mg/kg (rat)

Skin Corrosion/Irritation

Severe irritation of mucous and skin, removes natural skin oils.
May cause moderate to severe irritation.

Serious Eye Damage/Irritation

May cause moderate to severe irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

If inhaled in the form of dust, irritation of breathing passages, cough, sneezing.
Harmful. Can cause severe irritation of the nose and throat.

Skin Absorption

May be harmful
Severe irritation of mucous and skin. Removes natural skin oils.

Ingestion

Harmful
If ingested: Pain, vomiting blood, diarrhea, collapse, drop in blood pressure (indicates perforation of esophagus or stomach).
Can irritate the mouth, throat and stomach.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause Contact dermatitis. Following repeated or prolonged contact, this product can cause redness, desquamation and fissures. This product may contain trace amounts of crystalline silica. Excessive inhalation of respirable crystalline silica dust may result in respiratory disease, including silicosis, pneumoconiosis and pulmonary fibrosis.
Can cause permanent damage to the lungs.

Carcinogenicity

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This product is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain crystalline silica. (Silica, quartz) IARC: Group 1 – Carcinogenic to humans.

No information was located for: Skin Corrosion/Irritation, Serious Eye Damage/Irritation, STOT (Specific Target Organ Toxicity) - Single Exposure, Respiratory and/or Skin Sensitization, Development of Offspring, Sexual Function and Fertility, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Calcium hydroxide appears on the Domestic Substances Lists (DSL) under the Canadian Environmental Protection Act (CEPA).

Toxicity

At high concentrations, may be harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations. Not regulated under US DOT Regulations.

Special Precautions for User Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS Classification



Class D2A; D2B

Class E

D2A - Very Toxic (Chronic toxicity); D2B - Toxic (Skin irritant; Eye irritant; Skin sensitization); E - Corrosive

USA

US OSHA HazCom 1994 Regulatory Status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200 (1994)).

SECTION 16. OTHER INFORMATION

SDS Prepared By Bri-Chem Supply Ltd

Phone No. 403-252-5904

Date of Preparation March 16, 2016

Disclaimer This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as

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guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

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