

# Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

## U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



**IDENTITY** Quicklime, CaO, Lime  
Calcium oxide (all sizes including granular) (UN1910)

*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*

### Section I

#### Manufacturer's Name and Address

Chemical Lime Company  
3724 Hulen Street  
Fort Worth, Texas 76107

#### Emergency Telephone Number

Chemtrec 800-424-9300

#### Information Phone Number

817-732-8164

#### Date Prepared

3/30/2006

### Section II - Hazardous Ingredients/Identity Information

Hazardous Components	CAS	Common Name	OSHA PEL	ACGIH TLV	Other Limits	% (optional)
Calcium oxide	1305-78-8	Quicklime	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	>90%
Magnesium oxide	1309-48-4	Periclase	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	6 mg/m <sup>3</sup>	<5%
Calcium carbonate	1317-65-3	Limestone	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	6450 mg/kg	<3%
Silicon dioxide	14808-60-7	Quartz	*see note below	0.025 mg/m <sup>3</sup>	4 mg/m <sup>3</sup>	<2%

\*SiO<sub>2</sub> OSHA PEL: 10 mg/m<sup>3</sup> divided by (the percentage of silica in the dust plus 2) (respirable)

### Section III - Physical/Chemical Characteristics

Boiling Point	2850 °C	Melting Point	2570 °C	Specific Gravity	1.6 - 2.8 g/cc
Vapor Pressure (mm Hg)	N.A.	Vapor Density	N.A.	Evaporation Rate	N.A.
Solubility in Water	Reactive with water to produce Ca(OH) <sub>2</sub> with large amounts of heat. pH = 12.4@25°C				
Appearance and Odor	White or gray lumps or powder, odorless				

### Section IV - Fire and Explosion Hazard Data

Flash Point	LEL/UEL	Flammable Limits	Extinguishing Media
N.A.	N.A.	N.A.	Not Combustible -- Use extinguishing agent for surrounding fire

#### Special Firefighting Procedures/Unusual Fire and Explosion Hazards

In large amounts, calcium oxide will react with water to produce heat and possibly steam.  
Flood with excess water to remove heat.

### Section V - Reactivity Data

Stability	Conditions to Avoid (stability - related)
Unstable	Reacts with water to form Ca(OH) <sub>2</sub> and large amounts of heat. Reacts with CO <sub>2</sub> to form CaCO <sub>3</sub> .

#### Incompatibility (Materials to Avoid)

Acids: Reacts vigorously and produces heat. Maleic Anhydride: May react explosively. Nitro Organic Compounds: May react to form explosive salts. Phosphorous: May form flammable products when heated. Aluminum: May react in presence of water to form hydrogen gas.

#### Hazardous Polymerization/Hazardous Decomposition of Byproducts

Will not occur (none)

### Section VI - Health Hazard Data

Route(s) of Entry: Inhalation, Ingestion

#### Health Hazards (Acute and Chronic)

Avoid skin and eye contact as irritation will occur. Contact lenses should not be worn when working with lime products. Inhalation can cause coughing, sneezing or breathing problems. Material in contact with wet skin could cause severe irritation and/or burning.

Carcinogenicity: OSHA? SiO<sub>2</sub> NTP/IARC Monographs? SiO<sub>2</sub>

Respirable crystalline silica from occupational sources is classified by IARC as a Group I Carcinogen.  
California Proposition 65: Silica is on the Governor's Proposition 65 list. Components used in this product may contain trace amounts of inherent naturally occurring elements (such as, but not limited to arsenic, cadmium) that are on the Governor's Proposition 65 list.

**Section VI - Health Hazard Data (continued)****Signs and Symptoms of Exposure**

Skin or eye irritation; coughing or breathing problems.

**Medical Conditions Generally Aggravated by Exposure**

Respiratory problems, asthma, dermatitis or skin or eye sensitivity.

**Emergency and First Aid Procedure**

Flush contaminated area with excess water. If eye contact, rinse eye with eye wash solution or excess water and seek medical attention immediately.

**Section VII - Precautions for Safe Handling and Use****Steps to be Taken in Case Material is Released or Spilled**

Protect skin and eyes from contact and avoid inhalation of dust. If material is dry pick up and keep away from acids or organic materials. Place in steel drums. If wet add excess water to remove heat and place in steel drums.

**Waste Disposal Method**

Carefully add water in excess of 20 parts water to 1 part lime and flush to sewer. Consult local, state, or federal regulations.

**Precautions to be Taken in Handling and Storage**

Store in tightly closed containers and keep dry and away from acids or other incompatible substances.

Do not store or ship in aluminum containers.

**Shipping and Handling Restrictions for Quicklime**

*When being transported by air, calcium oxide is classified in the Department of Transportation (DOT) regulations as a hazardous material. Because express carriers (for example, Federal Express, Airborne Express, and United Parcel Service) ship by air, quicklime presented to these carriers for shipment should be packaged, marked, and labeled accordingly, and be accompanied by the appropriate shipping documentation. Only personnel trained and certified under applicable DOT Hazardous Materials Regulations (contained in Title 49 of the Code of Federal Regulations) may prepare quicklime for air transport. For additional information, contact the DOT website, [www.text-trieve.com/dotrspa](http://www.text-trieve.com/dotrspa), or the Research and Development Department of Chemical Lime Company at (817)732-8164.*

**Other Precautions**

Keep material dry. If material gets wet, flood with excess water to remove heat. Avoid eye contact and breathing dust.

**NFPA Rating:** HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 1

**HMIS Rating:** HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 1

**WHMIS Rating:** D2A, E

**Section VIII - Control Measures****Respiratory Protection (Specify Type)**

Dust masks meeting the NIOSH N95 rating are sufficient for casual exposure. (42 CFR)

<b>Ventilation</b>	<b>Local Exhaust</b> Vent to dust collector	<b>Special</b>	Do not dispose of dust with combustible materials.
	<b>Mechanical (General)</b> Vent to meet TLV requirements	<b>Other</b>	

**Protective Gloves**

Dry cloth or leather gloves

**Other Protective Clothing or Equipment**

Full clothing to cover arms and legs, safety glasses or face shield.

**Work/Hygienic Practices**

Eye wash and shower station should be readily available.

*Chemical Lime Company provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must consult their own technical and legal advisors and/or exercise their own judgment in determining its appropriateness for a particular purpose. Chemical Lime Company makes no representations or warranties, either express or implied, including without limitation and warranties of merchantability or fitness for a particular purpose with respect to the information set forth herein or the product(s) to which the information refers. Accordingly, Chemical Lime Company will not be responsible or liable for any claims, losses or damages resulting from the use of or reliance upon or failure to use this information.*