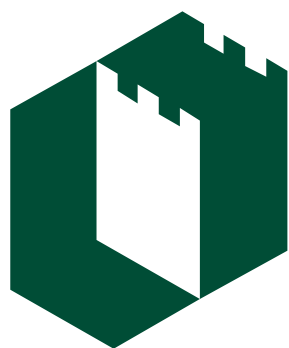


# **MATERIAL SAFETY DATA SHEET (MSDS) FOR QUICK LIME**

(Complies with OSHA's Hazard Communication Standard, 29 CFR 1910.1200)



**Oldcastle**<sup>®</sup>  
Industrial Minerals

**OLDCASTLE INDUSTRIAL MINERALS  
110 MARBLE STREET  
LEE, MA 01238**

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## Section 1 - IDENTIFICATION

### Supplier/Manufacturer

OLDCASTLE INDUSTRIAL MINERALS  
110 Marble Street  
Lee, MA 01238

### Emergency Contact Information

(413) 243-0053

### Product name

Quick Lime

### Chemical family

Autoclave Lime - (CAS #1317-65-3)

### Formula

CaO – 57%  
MgO – 33%

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## Section 2 - COMPONENTS

### Hazardous Ingredients

Respirable quartz (CAS# 14808-60-7) – greater than - 0.1% by weight

ACGIH TLV-TWA (1997) = 0.10 mg respirable quartz dust/m<sup>3</sup>

OSHA PEL (8-hour TWA) = (10 mg respirable dust/m<sup>3</sup>)/(percent silica + 2)

NIOSH REL (8-hour TWA) = 0.05 mg respirable dust/m<sup>3</sup>

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## Section 3 - HAZARD IDENTIFICATION

### Emergency Overview

Exposure of sufficient duration to wet quick lime can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns. The same type of tissue destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry quick lime.

### Potential Health Effects

#### **Relevant Routes of Exposure:**

Eye contact, skin contact, inhalation, and ingestion.

#### **Effects Resulting from Eye Contact:**

Exposure to airborne dust may cause immediate or delayed irritation or inflammation. Eye contact by large amounts of dry powder or splashes of wet quick lime may cause effects ranging from moderate eye irritation to chemical burns or blindness. Such exposures require immediate first aid (see Section 4) and medical attention to prevent significant damage to the eye.

#### **Effects Resulting from Skin Contact:**

Discomfort or pain cannot be relied upon to alert a person to hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly with wet quick lime. Exposed persons may not feel discomfort until hours after the exposure has ended and significant injury has occurred.

Dry quick lime contacting wet skin or exposure to moist or wet quick lime may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (alkali) chemical burns.

#### **Effects Resulting from Inhalation:**

Exposure to quick lime may cause irritation or caustic burns to the moist mucous membranes of the nose, throat, and upper respiratory system. It may also leave unpleasant deposits in the nose.

**Effects Resulting from Ingestion:**

Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are consumed.

**Carcinogenic potential:**

Quick lime is **not** listed as a carcinogen by NTP, OSHA, or IARC. It may however, contain trace amounts of substances listed as carcinogens by these organizations.

Crystalline silica, a contaminate in quick lime, is now classified by IARC as known human carcinogen (Group I). NTP has characterized respirable silica as "reasonably anticipated to be [a] carcinogen".

**Medical conditions which may be aggravated be, inhalation or dermal exposure:**

Pre-existing upper respiratory and lung diseases.

**Section 4 - FIRST AID**

Eyes

Immediately flush eyes thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

Skin

Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment in all cases of prolonged exposure to quick lime/lime mixtures, liquids from fresh lime products, or prolonged wet skin exposure to dry quick lime.

Inhalation of Airborne Dust

Remove to fresh air. Seek medical help if coughing and other symptoms do not subside.

Ingestion

Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

**Section 5 - FIRE AND EXPLOSION DATA**

Flash point .....	None	Lower Explosive Limit.....	None
Upper Explosive Limit.....	None	Auto ignition temperature.....	Not Combustible
Extinguishing media.....	Not Combustible	Special fire fighting Procedures.....	None
Hazardous combustion products.....	None	Unusual fire and explosion hazards...	None

**Section 6 - ACCIDENTAL RELEASE MEASURES**

Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin.

Wear appropriate personal protective equipment as described in Section 8.

Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal. Do not attempt to wash quick lime down drains.

Dispose of waste material according to local, state and federal regulations.

**Section 7 - HANDLING AND STORAGE**

Keep quick lime dry until used. Normal temperatures and pressures do not affect the material.

Promptly remove dusty clothing or clothing which is wet with cement fluids and launder before reuse. Wash thoroughly after exposure to dust or quick lime mixtures or fluids.

**Section 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

Skin Protection

Prevention is essential to avoiding potentially severe skin injury. Avoid contact with quick lime cement. If contact occurs, promptly wash affected area with soap and water. Where prolonged exposure to quick lime products might occur, wear

impervious clothing and gloves to eliminate skin contact. Wear sturdy boots that are impervious to water to eliminate foot and ankle exposure.

Do not rely on barrier creams: barrier creams should not be used in place of gloves.

Periodically wash areas contacted by quick lime or by hydrated lime based fluids with a pH neutral soap. Wash again at the end of work. If irritation occurs, immediately wash the affected area and seek treatment. If clothing becomes saturated with quick lime, it should be removed and replaced with clean dry clothing.

#### Respiratory Protection

Avoid actions that cause dust to become airborne. Use local or general exhaust ventilation to control exposures below applicable exposure limits.

Use NIOSH/MSHA approved (under 30 CFR 11) or NIOSH approved (under 42 CFR 84) respirators in poorly ventilated areas, if an applicable exposure limit is exceeded, or when dust causes discomfort or irritation. (Advisory: Respirators and filters purchased after June 10, 1998 must be certified under 42 CFR 84.)

#### Ventilation

Use local exhaust or general dilution ventilation to control exposure within applicable limits.

#### Eye Protection

Where potentially subject to splashes or puffs of quick lime, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with quick lime.

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### **Section 9 - PHYSICAL AND CHEMICAL, PROPERTIES**

Appearance.....	Light colored Powder	Odor.....	No distinct odor
Physical state.....	Solid (powder)	pH (in water).....	12 to 13
Solubility in water...(0.16%)		Vapor pressure.....	Not applicable
Vapor density.....	Not applicable	Boiling point.....	Not applicable (i.e., > 1000 C)
Melting point.....	Not applicable	Specific gravity (H2O = 1.0).....	2.7-3.1
Evaporation rate.....	Not applicable		

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### **Section 10 - STABILITY AND REACTIVITY**

#### Stability

Stable.

#### Conditions to avoid

Avoid contact with incompatible materials (see below).

#### Incompatibility

Maleic Anhydride, Phosphorus, Nitroethane, Nitromethane, Nitroparaffins, Nitropropane

Note: Attacks some metals.

#### Hazardous decomposition

Will not spontaneously occur. Silica-containing respirable dust particles may be generated by handling.

#### Hazardous Polymerization

Will not occur.

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### **Section 11 - TOXICOLOGICAL INFORMATION**

For a description of available, more detailed toxicological information contact the supplier or manufacturer.

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### **Section 12 - ECOLOGICAL INFORMATION**

#### Ecotoxicity

No recognized unusual toxicity to plants or animals

Relevant physical and chemical properties

(See Sections 9 and 10.)

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**Section 13 - DISPOSAL**

Dispose of waste material according to local, state and federal regulations. (Since quick lime is stable, uncontaminated material may be saved for future use).

Dispose of bags in an approved landfill or incinerator.

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**Section 14 - TRANSPORTATION DATA**

Hazardous materials description/proper shipping name

Quick lime is not hazardous under U.S. Department of Transportation (DOT) regulations.

Hazard class

Not applicable

Identification number

Not applicable.

Required label text

Not applicable.

Hazardous substances/reportable quantities (RQ)

Not applicable.

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**Section 15 - OTHER REGULATORY INFORMATION**

Status under USDOL-OSHA Hazard Communication Rule, 29 CFR 1910.1200

Quick lime is considered a "hazardous chemical" under this regulation, and should be part of any hazard communication program.

Status under CERCLA/SUPERFUND 40 CFR 117 and 302

Not listed.

Hazard Category under SARA(Title III), Sections 311 and 312

Quick lime qualifies as a "hazardous substance" with delayed health effects.

Status under SARA (Title III), Section 313

Not subject to reporting requirements under Section 313.

Status under TSCA (as of May 1997)

Some substances in quick lime are on the TSCA inventory list.

Status under the Federal Hazardous Substances Act

Quick lime is a "hazardous substance" subject to statutes promulgated under the subject act.

Status under California Proposition 65

This product contains up to 0.05 percent of chemicals (trace elements) known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the manufacturer to give the above warning in the absence of definitive testing to prove that the defined risks do not exist.

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**Section 16 - OTHER INFORMATION**

Revision date

April 2007

Other important information

Quick lime should only be used by knowledgeable persons. A key to using the product safely requires the user to recognize that quick lime chemically reacts with water, and that some of the intermediate products of this reaction pose a more severe hazard than does dry quick lime itself.

While the information provided in this material safety data sheet is believed to provide a useful summary of the hazards of quick lime as it is commonly used, the sheet cannot anticipate and provide the all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product.

SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY OLDCASTLE STONE PRODUCTS except that the product shall conform to contracted specifications. The information provided herein was believed by OLDCASTLE STONE PRODUCTS to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with quick lime. Users should review other relevant material safety data sheets before working with quick lime.