



Material Safety Data Sheet

Material Name: QUICKLIME

ID: C-MS-AT-2004ADQLIME

***** Section 1 - Chemical Product and Company Identification *****

Chemical Name: Calcium Oxide

Product Use: Industrial

Synonyms: ECO-CAL® LKD, HIGH-CAL QUICKLIME, METALLURGICAL QUICKLIME

Manufacturer Information

Specialty Minerals Inc.
The Chrysler Building
405 Lexington Avenue
New York, NY 10174-1901

Phone: 1-877-684-7627

Emergency # CHEMTREC: (800) 424-9300

***** Section 2 - Composition / Information on Ingredients *****

CAS #	Component	Percent (wt/wt)
1305-78-8	Calcium oxide	60-100
14808-60-7	Quartz	0.1-1.0

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Silica, crystalline (general form).

Component Information

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

***** Section 3 - Hazards Identification *****

Emergency Overview

This product is irritating to the eyes, respiratory system and skin. Quicklime reacts violently with water, releasing sufficient heat to ignite combustible materials in certain instances.

Potential Health Effects: Eyes

Contact can cause moderate to severe irritation and possible injury to the eyes. Contact lenses should not be worn when working with this product.

Potential Health Effects: Skin

This product is severely irritating to the skin and may cause burns, especially in the presence of moisture.

Potential Health Effects: Ingestion

This product may produce severe damage to the gastrointestinal tract if it is swallowed.

Potential Health Effects: Inhalation

This product is severely irritating to the respiratory system. WARNING: This product contains crystalline silica. Long-term overexposure to crystalline silica causes silicosis, a form of pulmonary fibrosis. Continued overexposure to silica can lead to cardiopulmonary impairment. Crystalline silica has been reviewed by IARC. IARC found sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources.

Medical Conditions Aggravated by Exposure

Contact may aggravate disorders of eyes, skin, gastrointestinal tract, and respiratory system.

Potential Environmental Effects

This material is alkaline and if released into water will cause an increase in its pH.

HMIS Ratings: Health: 2* Fire: 0 Reactivity: 2 Pers. Prot.: E

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

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*** Section 4 - First Aid Measures ***

First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First Aid: Skin

For skin contact flush with large amounts of water while removing contaminated clothing.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice.

First Aid: Inhalation

Move person to non-contaminated air. If symptoms persist, get medical attention.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

This material will not burn. However, quicklime reacts violently with water, releasing sufficient heat to ignite combustible materials in certain circumstances.

Hazardous Combustion Products

None identified.

Extinguishing Media

Do not use water or halogenated compounds.

Fire Fighting Equipment/Instructions

None necessary.

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Contain the discharged material.

Clean-Up Procedures

Provide adequate ventilation. Cleanup personnel should use personal protective equipment to reduce eye contact, inhalation of dust, and prolonged skin contact. Use vacuum equipment with HEPA filters or wet sweeping/dust suppressant if sweeping is required. Personal safety, handling and exposure recommendations described elsewhere in this data sheet apply to exposure during clean up of spilled material and must be followed.

Evacuation Procedures

None necessary.

Special Procedures

No additional information available.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid getting this material into contact with your skin and eyes.

Storage Procedures

Do not store or ship in aluminum containers.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

A: General Product Information

Keep formation of airborne dusts to a minimum.

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B: Component Exposure Limits

Calcium oxide (1305-78-8)

ACGIH: 2 mg/m3 TWA

OSHA: 5 mg/m3 TWA (not in effect as a result of reconsideration)

NIOSH: 2 mg/m3 TWA

Quartz (14808-60-7)

ACGIH: 0.025 mg/m3 TWA (respirable fraction)

OSHA: 0.1 mg/m3 TWA (respirable dust)

NIOSH: 0.05 mg/m3 TWA (respirable dust)

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear dust goggles.

Personal Protective Equipment: Skin

Use impervious gloves.

Personal Protective Equipment: Respiratory

Use a dust mask for particulate concentrations exceeding the Occupational Exposure Limit.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	White or Grayish White Granular Powder	Odor:	None
Physical State:	Solid	pH:	12.45 (solution at 25 deg. C)
Vapor Pressure:	N/A	Vapor Density:	N/A
Boiling Point:	5162 deg. F, 2850 deg. C	Melting Point:	4658 deg. F, 2570 deg. C
Solubility (H2O):	Negligible, reacts with water to produce calcium hydroxide and heat	Specific Gravity:	3.2

*** Section 10 - Stability & Reactivity ***

Chemical Stability

Stable under normal conditions. Reacts violently with water to form calcium hydroxide, generating heat.

Chemical Stability: Conditions to Avoid

Avoid contact with acids.

Incompatibility

Boric oxide, acids, fluorine, water, steam, and organic materials.

Hazardous Decomposition

None identified.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Acute and Chronic Toxicity

A: General Product Information

No information available for the product.

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B: Component Analysis - LD50/LC50

Calcium oxide (1305-78-8)

Oral LD50 Rat: 500 mg/kg

Quartz (14808-60-7)

Oral LD50 Rat: 500 mg/kg

Carcinogenicity

A: General Product Information

There may be a relationship between silicosis and certain cancers.

B: Component Carcinogenicity

Quartz (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NIOSH: potential occupational carcinogen

NTP: Known Human Carcinogen (Select Carcinogen)

IARC: Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogenic to humans))

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

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

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Calcium oxide (1305-78-8)

96 Hr LC50 Cyprinus carpio: 1070 mg/L [static]

Environmental Fate

This material shows no bioaccumulation or food chain concentration toxicity potential.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

No components are identified as hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

If this material becomes a waste it does not meet the criteria of a hazardous waste as defined by USEPA RCRA regulations. More stringent state or local regulations may apply. Combining this material with water may alter this classification.

*** Section 14 - Transport Information ***

International Transportation Regulations

Calcium oxide (quicklime) is only classified as a hazardous material by US Department of Transportation (DOT) regulations when shipped by air. When shipped by air, it is classified as follows:

Class 8 - Corrosives. PIN UN1910. Packing Group III. Maximum Net Quantity per Package (passenger vehicles = 25 kg)

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*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

All naturally occurring components of this product are automatically included in the USEPA TSCA Inventory List per 40 CFR 710.4 (b). All other components are on the USEPA TSCA Inventory List.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: Yes

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	FL	MA	MN	NJ	PA	MI
Calcium oxide	1305-78-8	Yes	No	Yes	Yes	Yes	Yes	No
Quartz	14808-60-7	No	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Other Regulations

A: General Product Information

Canadian WHMIS Classification: Class D, Division 2, Subdivision A. Class E, Corrosive Material

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	NDSL	EINECS	AUST	PHIL.	MITI	KOREA	ELINCS	CHINA
Calcium oxide	1305-78-8	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Quartz	14808-60-7	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes

C: Component Analysis - WHMIS IDL

Component	CAS	Present
Calcium oxide	1305-78-8	Yes
Quartz	14808-60-7	Yes

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*** Section 16 - Other Information ***

Other Information

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Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; DOT = Department of Transportation; RCRA = Resource Conservation and Recovery Act

This is the end of MSDS # C-MS-AT-2004ADQLIME