




## Section 1: Product & Company Information

**Product Name:** Quick Lime  
**Chemical Family:** Calcium Oxide  
**Product Use:** Drilling Fluid Additive

### Workplace Hazardous Materials Information Systems Data (WHMIS):

	Class ID	Class	Workplace Hazard
	D-2-A	Materials Causing Other Toxic Effects - Very Toxic	Toxic effects
	E	Corrosive Materials	Corrosive

**Manufacturer Name:** HiTech Fluid Systems  
**Address:** #1800, 505 3rd Street SW, Calgary, AB T2P 3E6 Canada  
**General Phone Number:** (403)547-2906  
**General Fax Number:** (403)547-3129  
**MSDS Revision Date:** June 1, 2008  
**Supercedes:** June 23, 2005  
**Prepared By:** HiTech Fluid Systems  
**Preparer's Phone:** (403)547-2906

## Section 2: Composition/Information on Ingredients

Chemical Name	Concentration	CAS#
Crystalline Silica, Quartz	>0.1%	14808-60-7
Calcium Oxide	>90%	1305-78-8

## Section 3: Hazards Identification

**Emergency Overview:** Consult a doctor for all exposures, except minor instances of inhalation.

### Routes of Entry:

**Skin Contact:** Yes  
**Skin Absorption:** No  
**Eye Contact:** Yes  
**Inhalation:** Yes  
**Ingestion:** Yes

**Potential Health Effects:**

<b>Skin:</b>	Irritation, burning, and corrosion of mucous and skin. Dehydration of tissues.
<b>Eye:</b>	Severe eye irritant. Intense watering of the eyes, possible lesions. Possible blindness when exposed for prolonged period. (Draize >80)
<b>Inhalation:</b>	If inhaled in form of dust, nose and throat irritation, coughing, sneezing, inflammation of respiratory tract, ulceration and perforation of nasal septum, bronchitis, possible pneumonia.
<b>Ingestion:</b>	If ingested, possible burning and edema of digestive tracts, abundant salivation, difficulties in swallowing and breathing, vomiting blood, drop in blood pressure (indicates perforation of esophagus or stomach.)

**Section 4: First Aid Measures**

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<b>Eye Contact:</b>	Immediately rinse contaminated area with gently running lukewarm water for at least 15 minutes. In all cases, seek immediate medical attention.
<b>Skin Contact:</b>	Carefully brush the contaminated body surfaces in order to remove all traces of lime. Remove all clothing. Rinse contaminated areas with lukewarm water for 15 minutes. Seek medical attention.
<b>Inhalation:</b>	Remove patient to fresh air. If breathing has stopped, administer artificial respiration. Seek immediate medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting. If patient is conscious, administer 300ml of water, followed by diluted vinegar (1 part vinegar to 2 parts water) or fruit juice to neutralize the alkali. Seek immediate medical attention.
<b>Other First Aid:</b>	Consult a doctor for all exposures, except minor instances of inhalation.

**Section 5: Fire Fighting Measures**

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<b>Conditions Of Flammability:</b>	Non-flammable
<b>Extinguishing Media:</b>	Avoid using water, unless necessary for other materials, in which case, flood to absorb heat generated. (Contact with water will evolve heat and could cause paper and cardboard to ignite.)
<b>Flashpoint:</b>	N/A
<b>Upper Flammable Limit:</b>	N/A
<b>Lower Flammable Limit:</b>	N/A
<b>Autoignition Temperature:</b>	N/A
<b>Protective Equipment:</b>	Firefighters must wear appropriate breathing apparatus and clothing.
<b>Sensitivity To Impact or Static Discharge:</b>	N/A
<b>Hazardous Combustion Products:</b>	N/A

**Fire Comment:**

## Section 6: Accidental Release Measures

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**Personnel Precautions:** Use proper personal protective equipment as listed in section 8.

**Spill Cleanup Measures:** Use appropriate safety equipment. Small spills, sweep up and put into approved DOT containers for disposal or re-use. Large spills, do not allow to enter waterways, sweep or shovel into approved DOT containers for re-use or disposal.

## Section 7: Handling & Storage

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**Handling:** Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact.

**Storage:** Store in a cool, dry, well ventilated place. Keep container tightly closed and away from incompatible materials.

## Section 8: Exposure Controls, Personal Protection, Exposure Guidelines

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**Engineering Controls:** Provide mechanical ventilation to prevent dust concentrations, and to reduce potential exposure.

**Personal Protective Equipment:** Chemical-resistant clothing is recommended, including gloves, apron, and goggles. Do not wear contact lenses when handling this material.

**Respiratory Protection:** Recommend NIOSH-approved dust respirator.

**Exposure Limits:** Not determined

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
Crystalline Silica, Quartz	0.05 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
Calcium Oxide	2	5

## Section 9: Physical & Chemical Properties

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**Physical State:** Solid

**Odour And Appearance:** White powder; odourless

**Odour Threshold:** N/A

**Boiling Point:** 2850°C

**Evaporation Rate:** N/A

**Melting Point:** 2580°C

**Freezing Point:** N/A

<b>Specific Gravity:</b>	3.2-3.4
<b>Solubility in Water:</b>	0.125g/100g Sat.soln
<b>Vapour Density:</b>	N/A
<b>Vapour Pressure:</b>	N/A
<b>pH:</b>	12.45
<b>Flash Point:</b>	N/A
<b>Volatility (% by volume):</b>	N/A
<b>Coefficient of Water to Oil distribution:</b>	N/A

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## Section 10: Stability & Reactivity

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<b>Chemical Stability:</b>	No
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions Of Chemical Instability:</b>	Absorbs moisture and carbon dioxide in air to form calcium hydroxide and calcium carbonate.
<b>Incompatible Substances:</b>	Boron tri-flouride, chlorine tri-fluoride, ethanol, fluorine, hydrogen flouride, phosphorus pentoxide, water and acids (violent reaction with generating heat and possible explosion in confined area)
<b>Special Decomposition Products:</b>	None

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## Section 11: Toxicological Information

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Chemical Name	LD <sub>50</sub> (Oral Rat)	LD <sub>50</sub> (Dermal Rabbit)	LC <sub>50</sub> (Inhalation Rat)
Crystalline Silica, Quartz	Not Available	Not Available	Not Available
Calcium Oxide	Not Available	Not Available	Not Available

<b>Effects Of Acute Exposure:</b>	Not determined
<b>Effects Of Chronic Exposure:</b>	Contact dermatitis
<b>General Irritancy Of Product:</b>	Severe to moist tissue
<b>Sensitization:</b>	Not determined
<b>Carcinogenicity:</b>	Could contain crystalline silica, a known carcinogen.
<b>Reproductive Toxicity:</b>	N/A
<b>Teratogenicity:</b>	N/A
<b>Embryotoxicity:</b>	Not Available
<b>Mutagenicity:</b>	N/A
<b>Synergistic Products:</b>	N/A

## Section 12: Ecological Information

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**Ecotoxicity:** Not Available

**Environmental Fate:** Not Available

## Section 13: Disposal Considerations

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**Waste Disposal:** All waste should be disposed of according to federal, provincial and local regulations. Containers should NOT be re-used. Containers should be disposed of in accordance with government regulations.

## Section 14: Transport Information

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**TDG Classification:** Not regulated



**DOT UN Number:** Not regulated

**Shipping Notes:** No special requirements

## Section 15: Regulatory Information

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This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

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## Section 16: Additional Information

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**MSDS Revision Date:** June 1, 2008

**MSDS Revision Notes:**

**MSDS Author:** HiTech Fluid Systems

**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 a 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.