

SDS no. 10046  
Version 6  
Revision date 19/Sep/2014  
Supersedes date 09/Apr/2013



# Safety Data Sheet

## LIME

### 1. Identification of the substance/preparation and of the Company/undertaking

#### 1.1 Product identifier

Product name LIME  
Product code 10046

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Drilling fluid additive  
Uses advised against Consumer use

#### 1.3 Details of the supplier of the safety data sheet

Supplier  
M-I L.L.C.  
P.O.Box 42842  
Houston, TX 77242  
www.miswaco.slb.com

Prepared by  
Global Chemical Regulatory Compliance (GCRC) , Mike McDowell

#### 1.4 Emergency Telephone Number

Emergency telephone (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600  
Telephone Number - 281-561-1512

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS - Classification

##### Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Environmental hazards Not classified

Physical Hazards Not classified

#### 2.2 Label elements



**Signal word**  
DANGER

**Hazard statements**

H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation

**Precautionary statements**

P280 - Wear eye protection/ face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/ physician

**Supplementary precautionary statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P321 - Specific treatment (see supplemental first aid instructions on this label)  
P332 + P313 - If skin irritation occurs: Get medical advice/ attention  
P362 - Take off contaminated clothing and wash before reuse  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray  
P271 - Use only outdoors or in a well-ventilated area  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P501 - Dispose of contents/ container to an approved waste disposal plant

### 3. Composition/information on Ingredients

**3.1 Substances**

Component	CAS-No	Weight % - range
Calcium hydroxide	1305-62-0	100

**3.2 Mixtures**

Not Applicable

### 4. First aid measures

#### **4.1 Description of first-aid measures**

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water for at least 30 minutes. Get immediate medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. Remove contact lenses. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

#### **4.2 Most important symptoms and effects, both acute and delayed**

##### **Main symptoms**

<b>Inhalation</b>	Please see Section 11. Toxicological Information for further information.
<b>Ingestion</b>	Please see Section 11. Toxicological Information for further information.
<b>Skin contact</b>	Please see Section 11. Toxicological Information for further information.
<b>Eye contact</b>	Please see Section 11. Toxicological Information for further information.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure
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## **5. Fire-fighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Water Fog, Alcohol Foam, CO<sub>2</sub>, Dry Chemical.

#### **Extinguishing media which shall not be used for safety reasons**

None known.

### **5.2 Special hazards arising from the substance or mixture**

#### **Unusual fire and explosion hazards**

None.

#### **Hazardous combustion products**

Calcium oxide.

### **5.3 Advice for firefighters**

#### **Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

## **6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Prevent further leakage or spillage if safe to do so.

**6.2 Environmental precautions**

Prevent product from entering drains.

**Environmental exposure controls**

No information available.

**6.3 Methods and materials for containment and cleaning up**

**Methods for containment**

Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

**Methods for cleaning up**

Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

**6.4 Reference to other sections**

No information available.

**7. Handling and storage**

**7.1 Precautions for safe handling**

**Handling**

Do not get in eyes, on skin or on clothing. Avoid breathing dust; if exposed to high dust concentration, leave area immediately.

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures/precautions** Keep away from direct sunlight. Protect from moisture.

**Storage precautions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**8. Exposure controls/personal protection**

**8.1 Control parameters**

**Component Information**

Component	ACGIH TLV	OSHA PEL
Calcium hydroxide 1305-62-0 ( 100 )	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup> (resp); 15 mg/m <sup>3</sup> (total)

**8.2 Exposure controls**

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

**Engineering measures to reduce exposure**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

<b>Eye protection</b>	Tightly fitting safety goggles.
<b>Hand protection</b>	Neoprene, Nitrile.
<b>Respiratory protection</b>	All respiratory protection equipment should be used within a comprehensive respiratory protection program that meets the requirements of 29 CFR 1910.134 (U.S. OSHA Respiratory Protection Standard) or local equivalent.  If exposed to airborne particles of this product use at least a NIOSH-approved N95 half-mask disposable or re-useable particulate respirator. In work environments containing oil mist/aerosol use at least a NIOSH-approved P95 half-mask disposable or re-useable particulate respirator.
<b>Skin and body protection</b>	Wear suitable protective clothing and gloves.

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Solid powder
<b>Appearance</b>	Opaque
<b>Odor</b>	Odorless
<b>Color</b>	White
<b>Odor threshold</b>	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	12.4	
pH @ dilution		
Melting/freezing point		
Boiling point/range	No information available	
Flash point	No information available	
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	2.08 - 2.34	
Bulk density	No information available	
Relative density	No information available	
Water solubility	Slightly soluble in water.	
Solubility in other solvents	Partly miscible	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Log Pow	Does not bioaccumulate	
Explosive properties	No information available	
Oxidizing properties	No information available	

**9.2 Other information**

<b>Pour point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content(%)</b>	No information available
<b>Density</b>	No information available

**10. Stability and reactivity**

**10.1 Reactivity**

No specific reactivity hazards associated with this product.

**10.2 Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3 Possibility of Hazardous Reactions**

**Hazardous polymerization**

Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

Avoid extreme temperatures.

**10.5 Incompatible materials**

Strong oxidizing agents.

**10.6 Hazardous decomposition products**

Calcium oxide.

**11. Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

<b>Inhalation</b>	Irritating to respiratory system.
<b>Eye contact</b>	Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.
<b>Acute toxicity</b>	0% of the mixture consists of ingredient(s) of unknown toxicity.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium hydroxide	= 7340 mg/kg ( Rat )	No data available	No data available

**Sensitization** This product does not contain any components suspected to be sensitizing.

**Mutagenic effects** No evidence of mutagenic properties.

**Carcinogenicity** No evidence of carcinogenic properties.

**Reproductive toxicity** No evidence of toxicity to reproduction.

**Developmental toxicity** Not known to cause birth defects or have a deleterious effect on a developing fetus.

**Routes of exposure** Skin contact. Inhalation. Eye contact.

<b>Routes of entry</b>	No route of entry noted.
<b>Specific target organ toxicity (single exposure)</b>	Not classified
<b>Specific target organ toxicity (repeated exposure)</b>	Not classified.
<b>Aspiration hazard</b>	Not Applicable.

## 12. Ecological information

### 12.1 Toxicity

**Toxicity to algae**

See component information below.

**Toxicity to fish**

See component information below.

**Toxicity to daphnia and other aquatic invertebrates**

See component information below.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Calcium hydroxide	160 mg/L LC50 (Gambusia affinis) = 96 h	No information available	No information available

### 12.2 Persistence and degradability

No product level data available.

### 12.3 Bioaccumulative potential

No product level data available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)  
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

### 12.6 Other adverse effects.

None known.

## 13. Disposal considerations

### 13.1 Waste treatment methods

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

**14. Transport information**

**14.1 UN Number**

<b>UN/ID No. (ADR/RID/ADN/ADG)</b>	Not regulated
<b>UN No. (IMDG)</b>	Not regulated
<b>UN No. (ICAO)</b>	Not regulated
<b>UN No. (DOT)</b>	Not regulated

**14.2 Proper shipping name**

Not regulated for transportation by DOT, TDG, IMDG and ICAO/IATA.

**14.3 Hazard class(es)**

<b>ADR/RID/ADN Hazard class</b>	Not regulated
<b>IMDG Hazard class</b>	Not regulated
<b>ICAO Hazard class/division</b>	Not regulated
<b>DOT Hazard class</b>	Not regulated

**14.4 Packing group**

<b>ADR/RID/ADN Packing Group</b>	Not regulated
<b>IMDG Packing group</b>	Not regulated
<b>ICAO Packing group</b>	Not regulated
<b>DOT Packing group</b>	Not regulated

**14.5 Environmental hazard**

No

**14.6 Special precautions**

Not Applicable

**15. Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International inventories**

<b>USA (TSCA)</b>	Complies
<b>European Union (EINECS and ELINCS)</b>	Complies
<b>Canada (DSL)</b>	Complies
<b>Philippines (PICCS)</b>	Complies
<b>Japan (ENCS)</b>	Complies
<b>China (IECSC)</b>	Complies
<b>Australia (AICS)</b>	Complies
<b>Korean (KECL)</b>	Complies
<b>New Zealand (NZIoC)</b>	Complies

**U.S. Federal and State Regulations**



Component	SARA 302 / TPQs	SARA 313	CERCLA RQ
Calcium hydroxide	N/A	N/A	N/A

**State Comments**

Proposition 65: This product is not known to contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer and/or reproductive toxicity at levels that are expected to pose a significant risk under anticipated use conditions.

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**16. Other information**

**Supersedes date** 09/Apr/2013  
**Revision date** 19/Sep/2014  
**Version** 6

**HMIS classification**

Health 2  
Flammability 0  
Physical hazard 0

N/A - Not Applicable, N/D - Not Determined.

**Disclaimer**

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