U.S. LIME COMPANY - Shreveport
MATERIAL SAFETY DATA SHEET

MSDS Number: U S Lime H 1
Revision Date: January 11, 2011
Prepared pursuant to ANSI Standard Z400.1-1998

1. Product and Company Identification

Product Name: Calcium Hydroxide, $Ca(OH)_2$ **Synonyms**: Hydrated Lime

Company Identification:

U.S. Lime Company
6000 Vincent Ave
Shreveport, LA 71136-6771

Information: 318 865-9655

Emergency: 318 865-9655

2. Composition/Information on Ingredients

Component	CAS #	Exposure Limits	% by weight
Calcium Hydroxide $Ca(OH)_2$	1305-62-0	OSHA PEL: 15 mg/m^3 total 5 mg/m^3 respirable ACGIH TLV: 5 mg/m^3	Avg. 96% - 98.0%
Magnesium Oxide	1309-48-4	OSHA PEL: 15 mg/m^3 ACGIH TLV: 10 mg/m^3	Avg. <1.0%
Silicon Dioxide	7631-86-9	OSHA PEL for crystalline silica (as total dust) : 30 mg/ m^3 divided by the percentage of silica in the dust plus 2 ACGIH TLV: 0.1 mg/m^3	Avg. <1.0%

OSHA Regulatory Status: This material is subject to 29 CFR 1910.1200 (Hazard Communication).

3. Hazards Identification

Emergency Overview: Hydrated lime is an odorless white or grayish-white material that is a granular powder. Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract. Hydrated lime is stable unless in contact with acids which causes vigorous reaction and produces heat.

Potential Health Effects

Eyes: Contact can cause severe irritation or burning of eyes with the potential of permanent damage.

Skin: Extended contact can cause drying and irritation of skin due to the removal of the natural oils. Use of skin cream after washing to replace natural oils is encouraged.

Ingestion: Non-toxic but could cause burning of gastrointestinal tract if swallowed.

Inhalation: Prolonged inhalation of this product could cause irritation of the respiratory system. Long-term exposure may cause permanent damage. Hydrated lime is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline silica in the form of quartz or crystobalite, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

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 or moist soil will cause an increase in pH.

4. First Aid Measures

Eyes: Immediately flush eyes with generous amounts of water for at least 15 minutes. Pull back the eyelid to ensure that all lime dust has been washed out. Seek medical attention immediately. Do not rub eyes.

Skin: Wash exposed area with water. Apply burn ointment if burn occurs; seek medical attention if redness or irritation persists.

Ingestion: Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth unless instructed to do so by medical personnel.

Inhalation: Move victim to fresh air. Seek medical attention if necessary. If breathing has stopped, give artificial respiration.

Note to Physicians: Provide general supportive measures and treat symptomatically.

5. Fire Fighting Measures

Fire Hazards: Hydrated lime is not combustible or flammable. However, hydrated lime reacts violently with acids, and may release heat sufficient to ignite combustible materials in certain instances. Hydrated lime is not considered to be an explosion hazard, although reaction with incompatible materials may rupture containers.

Hazardous Combustion Products: None.

Extinguishing Media: Use dry chemical fire extinguisher. Do not use water or halogenated compounds. Large amounts of water may be used to deluge small quantities of hydrated lime.

Fire Fighting Instructions: Keep personnel away from and upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

6. Accidental Release Measures

Spill /Leak Procedures: Do NOT use water on bulk material spills. Use proper protective equipment.

Small Spills: Use dry methods to collect spilled materials. Avoid generating dust. Do not clean up with compressed air. Store collected materials in dry, sealed plastic or metal containers. Residue on surfaces may be water washed.

Large Spills: Use dry methods to collect spilled materials. Evacuate area downwind of clean-up operations to minimize dust exposure. Store spilled materials in dry, sealed plastic or metal containers.

Containment: For large spills, as much as possible, avoid the generation of dusts. Prevent release to sewers or waterways.

Cleanup: Residual amounts of material can be flushed with large amounts of water. Equipment can be washed with either a mild vinegar and water solution, or detergent and water.

7. Handling and Storage

Handling: Keep in tightly closed containers. Protect containers from physical damage. Avoid direct skin contact with the material.

Storage: Store in a cool, dry, and well-ventilated location. Do not store near incompatible materials. Keep away from moisture. Do not store or ship in aluminum containers.

8. Exposure Controls/Personal Protection

Engineering Controls: Provide ventilation adequate to maintain PELs.

Respiratory Protection: Use NIOSH/MSHA approved respirators if airborne concentration exceeds PEL.

Skin Protection: Use appropriate gloves to prevent skin contact. Clothing should fully cover arms and legs.

Eye Protection: Use safety glasses with side shields or safety goggles.

Other: Eye wash fountain and emergency showers are recommended.

9. Physical and Chemical Properties

Appearance: White or grayish-white material. **Odor**: Faint musty earth odor

Physical State: Solid **Boiling Point**: Decomposes @1076° F. to CaO

Vapor Pressure: N/A **Vapor Density**: N/A

Specific Gravity: 2.2-2.4

Solubility in Water: Negligible

PH at 25 degrees C: 12.45 (approximately)

10. Stability and Reactivity

Stability: Chemically stable unless in contact with acids. See also Incompatibility below.

Incompatibility/Conditions to Avoid: Hydrated lime should not be mixed or stored with the following materials.

ACIDS
REACTIVE FLUORIDATED COMPOUNDS
REACTIVE BROMINATED COMPOUNDS
REACTIVE POWERED METALS
ORGANIC ACID ANHYDRIDES
NITRO-ORGANIC COMPOUNDS
REACTIVE PHOSPHOROUS COMPOUNDS
INTERHALOGENATED COMPOUNDS

Hazardous Decomposition Products: None

Hazardous Polymerization: None

11. Toxicological Information:

No LD50/LC50 has been identified for this product's components. Hydrated lime is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled in the form of quartz or crystobalite.

12. Ecological Information:

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

Environmental Fate: This material shows no bioaccumulation effect or food chain concentration toxicity.

13. Disposal Considerations:

Dispose of in accordance with all applicable federal, state, and local environmental regulations. If this product as supplied, and unmixed, becomes a waste, it will not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act.

14. Transportation Information:

Hydrated lime is not classified as a hazardous material by DOT when transported by any means.

15. Regulatory Information:

EPA Regulations:

RCRA Hazardous Waste Number: not listed (40 CFR 261.33)
RCRA Hazardous Waste Classification (40 CFR 261): not classified
CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b) (4); CWA, Sec. 307 (a), CAA, Sec. 112
CERCLA Reportable Quantity (RQ) not listed.
SARA 311/312 Codes: not listed.
SARA Toxic Chemical (40 CFR 372.65): not listed.
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ): not listed.
All chemical ingredients are listed on the USEPA TSCA Inventory List.

OSHA/MSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): 5 mg/M^3 TWA-8
MSHA: not listed.
OSHA Specifically Regulated Substance (29CFR 1910) not listed.

State Regulations: Consult state and local authorities for guidance.

16. Other Information:

HMIS: Health Risks 1, Flammability 0, Reactivity 0, Personal Protection, E

NFPA: Health Hazard 1, Fire Hazard 0, Reactivity 0

The above MSDS complies with MSHA'S Hazard Communication Standard 30 CFR, Part 47 and OSHA's Hazard Communication standard 29 CFR 1910.1200 and OSHA form 174. We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied.