



Date Prepared: November 1, 2000

Date Reviewed: March 21, 2006

MATERIAL SAFETY DATA SHEET

Product Name: Carbide Lime

March 21, 2006

1. Chemical Product and Company Identification

Linweld, Inc
9911 Deer Park Road
Waverly, NE 68462

Telephone Number
Information: (402) 786-3330
Emergency: (402) 786-5277

Product Name: Carbide Lime

Chemical Name: Water suspension of calcium hydroxide; Water suspension of slaked lime

Common Names: Carbide lime; Hydrate of lime; Calcium hydrate from acetylene generation

2. Hazard Ingredients and Identity Information

Component	% VOLUME	OSHA-PEL	ACGIH-TLV	CAS NUMBER
Calcium Hydroxide	30-50	15 mg/m3 TWA 5 mg/m3 (respirable) TWA	5 mg/m3 (respirable) TWA	001305-62-0
Water	50-70	N/A	N/A	N/A

3. Physical and Chemical Characteristics

Boiling Point:	N/A	Specific Gravity:	2.24	pH:	2.24
Melting Point:	4658° F	Evaporation Rate:	N/A	Physical State:	Solid or slurry
Vapor Pressure:	N/A	Solubility (H₂O)	0.185 G/100 cc		

Appearance and Odor:

Grayish/white nonflammable thick liquid suspension in water.

How to Detect This Substance:

N/A

Other Physical and Chemical Data:

N/A

4. Fire and Explosion Hazard Data

Flammability Classification:	Nonflammable	Flash Point (F):	N/A	LEL (%):	N/A
Ignition Temperature:	N/A	Method:	N/A	UEL (%):	N/A

Extinguishing Media:

Use extinguishing media suitable for the combustible materials involved in the fire. Use water in flooding quantities as a fog and apply from as far a distance as possible. Do not allow run-off to enter waterways or sewers.

Use dry chemical, carbon dioxide, halon, or foam for small fires. Use water spray, fog, or foam for large fires.

Fire Fighting Procedures:

Firefighters should wear respiratory (SCBA) and full turnout or Bunker gear with corrosive resistant clothing. Do not allow run-off to enter waterways or sewers.

Fire & Explosion Hazard:

Nonflammable slurry. When heated above 1076° F, calcium hydroxide can decompose to produce calcium oxide and water vapor. Calcium oxide is irritating and corrosive and incompatible with organic materials. Calcium oxide also reacts with water to form calcium hydroxide, which liberates heat during formation.

5. Reactivity Data

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility:

Reacts with acids. Causes explosive decomposition of maleic anhydride. Forms explosive products with nitroethane and water. Phosphorus boiled alkaline oxides yield mixed phosphines which may ignite spontaneously in air. Must keep dust and lime hydrate away from incompatible materials.

Conditions to Avoid:

Must keep dust and lime hydrate away from incompatible materials. Liberates ammonia, (NH₃) from ammonium salts. When heated above 1076° F, calcium hydroxide decomposes to produce calcium oxide.

Other Reactivity Data:

N/A

6. Health Hazard Data

Route(s) of Entry:	Eye contact Yes	Skin Contact Yes	Skin Absorption No
	Inhalation Yes	Ingestion Yes	

Health Hazards:

Acute

Contact with eyes will cause irritation or characteristic alkaline burns. Very irritating to mucous membranes and moist tissue. Cornea of severely burned eyes may be anesthetic for several days after injury, possibly due to corneal nerve damage. Severely irritating to the skin and moist tissue. Contact can cause corrosive burns. Calcium hydroxide penetrates the skin slowly; extent of damage depends on the duration of contact. Inhalation of dust may be severely irritating and cause burns to the nose and throat. Repeated or prolonged inhalation may inflame respiratory passages and produce ulcerations and perforation of the nasal septum. Stridor, tightness of the chest and pulmonary edema may occur following excessive inhalation of dust.

Chronic

Ingestion usually results in burns to the lips, tongue, and mucous membranes of the mouth and throat, followed by severe abdominal pains. Burns may appear in the throat without being present in the mouth. Spontaneous vomiting, abdominal pain, dysphagia and drooling may be noted. Blindness can result. Repeated or prolonged inhalation may inflame respiratory passages and produce ulcerations and perforation of the nasal septum. In severe cases, if death does not occur with 24 hours, the person may improve in 2 to 4 days, followed by the onset of severe abdominal pain and rapid fall of blood pressure. These conditions indicate delayed gastric or esophageal perforation. Esophageal stricture can occur within weeks to months later, making swallowing difficult.

Carcinogenicity:

NTP No	IARC Monographs No	OSHA Regulated No
-----------	-----------------------	----------------------

Signs and Symptoms of Exposure and Emergency First Aid Procedures:

Eye Contact

Contact with eyes will cause irritation or characteristic alkaline burns. Very irritating to mucous membranes and moist tissue. Cornea of severely burned eyes may be anesthetic for several days after injury, possibly due to corneal nerve damage. Clumps of moist material may form and be difficult to remove by normal irrigation. Clumps tend to lodge deep in the cul-de-sacs and act as reservoirs for liberation of calcium hydroxide over long periods of time. Blindness can result. Immediately flush eyes with low pressure, cool water for at least 30 minutes, holding eyelids open to ensure flushing. Seek immediate medical (ophthalmologic) attention. Speed in treatment can prevent serious eye damage. Clumps of moist material may lodge deeply in cul-de-sacs inferiorly and superiorly, and may be difficult to remove by normal irrigation. Ensure adequate flushing by opening eyelids to remove clumps of material.

6. Health Hazard Data (Continued)

Skin Contact	Severely irritating to the skin and moist tissue. Contact can cause corrosive burns. Calcium hydroxide penetrates the skin slowly; extent of damage depends on the duration of contact. Remove contaminated clothing immediately. Flush affected areas immediately with large quantities of water for at least 15 minutes. Diluted vinegar may be used to neutralize alkali effects, followed by thorough washing with soap and water. If burns are suspected or irritation persists, seek medical attention. If burns are suspected or irritation persists, seek immediate medical attention.
Inhalation	Inhalation of dust may be severely irritating and cause burns to the nose and throat. Repeated or prolonged inhalation may inflame respiratory passages and produce ulcerations and perforation of the nasal septum. Stridor, tightness of the chest and pulmonary edema may occur following excessive inhalation of dust. PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. Quick removal from the contaminated area is most important. Persons should be assisted to an uncontaminated area and inhale fresh air. Further treatment should be symptomatic and supportive.
Ingestion	Ingestion usually results in burns to the lips, tongue, and mucous membranes of the mouth and throat, followed by severe abdominal pains. Burns may appear in the throat without being present in the mouth. Spontaneous vomiting, abdominal pain, dysphagia and drooling may be noted. In severe cases, if death does not occur with 24 hours, the person may improve in 2 to 4 days, followed by the onset of severe abdominal pain and rapid fall of blood pressure. These conditions indicate delayed gastric or esophageal perforation. Esophageal stricture can occur within weeks to months later, making swallowing difficult. DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION. Give victim water or milk to drink. Rinse residual material from the mouth and throat. Do not give neutralizing agents or activated charcoal. Never give anything by mouth to an unconscious victim. If spontaneous vomiting occurs, ensure the airway is clear and rinse mouth with water.
Notes to Physician	INGESTION- Esophagoscopy should be performed within 12 - 24 hours after ingestion. Second and third degree burns have been reported in 9 to 22% of asymptomatic patients. Do not pass esophagoscope beyond the first circumferential burn for fear of perforation. Antibiotics should be used only for specific indications of infection. Pharmacological doses of steroids. (1 mg/kg prednisone) may be considered with caution where deep or circumferential esophageal burns are detected. INHALATION - Administer oxygen, determine blood gases, and obtain a chest x-ray. If pulmonary edema is present, consider positive and expiratory pressure ventilation and steroids.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory conditions. Persons of ill health that may be aggravated by exposure to carbide lime should not be allowed to work with or handle this product.

7. Precautions for Safe Handling and Use**Actions if Released or Spilled:**

Evacuate all personnel from affected area. Use appropriate protective equipment when responding to spill. Contain leak/spill if possible.

Small spills: Carefully scoop or shovel into clean, dry containers for disposal or recovery. For lime that has dried, avoid creating dust. Recovered lime may be collected for reuse. Small amounts may be diluted with water and flushed to sewer if appropriate approvals are obtained.

Large spills: Keep unnecessary people away. Isolate hazard area. Stay upwind from dried material present, and uphill in the event of a slurry spill. Dike well ahead of slurry for later disposal or recovery. Protective clothing and equipment may be necessary to prevent exposure to lime. Personnel responding to large spills should have training in lime characteristics and spill response. Avoid creating dust if material has dried. Keep material away from waterways and sewers.

Waste Disposal Method:

Dispose in accordance with federal, state and local government regulations. Consult environmental regulatory agencies for guidance on acceptable disposal practices.

Handling and Storage Precautions:

Store in a clean, well ventilated area. Isolate incompatible materials.

Other Precautions:

Wear appropriate personal protective equipment. Do not inhale dusts or mists. Do not get on skin or in eyes. Immediately flush contaminated skin with large quantities of water. Consumption of food or beverages in the work area should be prohibited. Exercise good personal hygiene.

Product Name: Carbide Lime

March 21, 2006

7. Precautions for Safe Handling and Use

Transportation Information:

Shipping Name	Calcium Hydroxide
Hazard Class	N/A
ID Number	N/A
Shipping Label	N/A

NFPA Rating:

Health: 3 **Flammability:** 0 **Reactivity:** 1

8. Control Measures

Eye Protection:

Safety glasses with side shields, goggles, or full-faceshield as necessary to prevent contact.

Protective Gloves:

Long protective gloves of any material to prevent contact of dried material with the skin. Long rubber gloves, apron boots, etc. as necessary to prevent contact with the slurry.

Respiratory Protection:

Respiratory protection is normally not necessary with adequate ventilation. A NIOSH/MSHA-approved respirator with HEPA cartridge may be used in dusty conditions.

Ventilation:

Use local exhaust and general ventilation to reduce dust concentrations, if any, to below the exposure limit.

Other Protective Clothing or Equipment:

An emergency eyewash station and safety shower should be available in the immediate area. Long-sleeve shirts or other skin covering may be necessary to reduce exposure.

9. Regulatory Information

SARA TITLE III NOTIFICATIONS AND INFORMATION

SARA Title III - Section 313 Supplier Notification:

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know (EPCRA) of 1986 and 40 CFR 372.

SARA Title III - Hazard Classes:

Acute Health Hazards
Chronic Health Hazards

Disclaimer of Expressed and Implied Warranties

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose.