Calcium Oxide
04030

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Calcium Oxide
Catalog Numbers:
C114 3, C114 50, C114-3, C114-50, C1143, C1143LOT001, C11450, C117 500, C117-500, C117500
Synonyms:
Quicklime; Burnt Lime; Calcia; Calx; Pebble Lime; Unslaked Lime.
Company Identification: Fisher Scientific
1 Reagent Lane
Fairlawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
1305-78-8	Calcium Oxide	>98%	215-1389

Hazard Symbols: O C
Risk Phrases: 14 34 36/37/38 8

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: white, light yellow, light gray.
Danger! Strong oxidizer. Contact with other material may cause a fire. Corrosive. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. May cause severe eye irritation and possible injury. May cause severe respiratory and digestive tract irritation with possible burns. Eye contact may result in permanent eye damage.
Target Organs: Eyes.

Potential Health Effects

Eye:

May result in corneal injury. Contact with liquid or vapor causes severe burns and possible irreversible eye damage. May cause conjunctivitis. May cause permanent corneal opacification.

Skin:

Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. May cause deep, penetrating ulcers of the skin.

Ingestion:

Causes gastrointestinal tract burns. May cause circulatory system failure. May cause perforation of the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock.

Inhalation:

Causes respiratory tract irritation. May cause chemical bronchitis with coughing and difficulty in breathing. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Repeated inhalation may cause perforation of the nasal septum.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration.

Notes to Physician:

Treat symptomatically and

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is nonflammable. Use water with caution and in flooding amounts. Reacts violently with water.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Do NOT use carbon dioxide. Use extinguishing media most appropriate for the surrounding fire. Do NOT use halogenated agents. Use flooding quantities of water. Contact professional fire-fighters immediately.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as Indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation.

Storage:

Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Corrosives area. Store in glass containers.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-FinalPELs
Calcium Oxide	2 mg/m3	2 mg/m3 TWA 25 mg/m3 IDLH	5 mg/m3 TWA

OSHA Vacated PELs:

Calcium Oxide:

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

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear a chemical apron. Wear appropriate clothing to prevent skin exposure.

Respirators:

Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:	Solid
Appearance:	white, light yellow, light gray
Odor:	odorless
pH:	12.4 @ 0.15% soln.
Vapor Pressure:	Negligible.
Vapor Density:	Not available.
Evaporation Rate:	Negligible.
Viscosity:	Not available.
Boiling Point:	2850 deg C
Freezing/Melting Point:	2614 deg C
Autoignition Temperature:	Not available.
Flash Point:	Noncombustible.
NFPA Rating:	(est.) Health: 3; Flammability: 0; Reactivity: 1
Explosion Limits, Lower:	Not available.
Upper:	Not available.
Decomposition Temperature:	Not available.
Solubility:	reacts with H2O forming Ca(OH)2
Specific Gravity/Density:	3.37
Molecular Formula:	CaO
Molecular Weight:	56.0794

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid:
Ignition sources, dust generation, contact with water, acids, excess heat, combustible materials, reducing agents.
Incompatibilities with Other Materials:
Reducing agents.
Hazardous Decomposition Products:
Irritating and toxic fumes and gases.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 1305-78-8: EW3100000
LD50/LC50:
Not available.
Carcinogenicity:
Calcium Oxide -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No information available.
Teratogenicity:
No information available.
Reproductive Effects:
No information available.
Neurotoxicity:
No information available.
Mutagenicity:
No information available.
Other Studies:
No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Chemical waste generators must determine whether a discarded chemical is class if as a hazardous waste.
US EPA guidelines for the classification determination are listed in 40 CFR Part Additionally, waste generators must consult state and local hazardous waste regu ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: CALCIUM OXIDE
Hazard Class: 8
UN Number: UN1910
Packing Group: III
Canadian TDG
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 1305-78-8 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (RQ)
None of the chemicals in this material have an RQ.
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 1305-78-8: acute, reactive.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly Hazardous by OSHA.

STATE

Calcium Oxide can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: O C

Risk Phrases:

R 14 Reacts violently with water.
R 34 Causes burns.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 7/8 Keep container tightly closed and dry.

WGK (Water Danger/Protection)

CAS# 1305-78-8: 1

United Kingdom Occupational Exposure Limits

CAS# 1305-78-8: OES-United Kingdom, TWA 2 mg/m3 TWA

Canada

CAS# 1305-78-8 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of E, C.
CAS# 1305-78-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 1305-78-8: OEL-AUSTRALIA:TWA 2 mg/m3
OEL-AUSTRIA:TWA 5 mg/m3
OEL-BELGIUM:TWA 2 mg/m3
OEL-DENMARK:TWA 2 mg/m3
OEL-FINLAND:TWA 2 mg/m3
OEL-FRANCE:TWA 2 mg/m3
OEL-GERMANY:TWA 5 mg/m3
OEL-INDIA:TWA 2 mg/m3
OEL-THE NETHERLANDS:TWA 2 ppm (5 mg/m3)
OEL-THE PHILIPPINES:TWA 5 mg/m3
OEL-POLAND:TWA 2 mg/m3
OEL-SWEDEN:TWA 2 mg/m3;STEL 5 mg/m3
OEL-TURKEY:TWA 5 mg/m3
OEL-UNITED KINGDOM:TWA 2 mg/m3
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 12/12/1997 Revision #3 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect To such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability

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