Material Safety Data Sheet

Calcium oxide
MSDS# 04030

Section 1 - Chemical Product and Company Identification

MSDS Name: Calcium oxide
Catalog Numbers:
19691-0000, 19691-0010, 40389-5000, 42283-0000, 42283-0010, C/2100/60, C/2120/60, C/2120/65, C/2160/50, SP/0295, SR/C211
Synonyms:
Lime; Quicklime; Burnt lime; Calx; Unslaked lime; Fluxing lime; Calcia; Pebble lime.
Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

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CAS#:          1305-78-8
Chemical Name: Calcium oxide
%:             >98
EINECS#:      215-138-9
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Hazard Symbols:
C
Risk Phrases:
34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Causes burns.
Potential Health Effects
Eye:
Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. Causes eye irritation and possible burns.
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:
May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause circulatory system failure. May cause perforation of the digestive tract. May cause excess salivation, painful swallowing, rapid pulse and thermal burns.
Inhalation:
May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.
Chronic:
Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause nasal septum ulceration and perforation.

Section 4 - First Aid Measures

Eyes:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.
Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

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. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials.

Extinguishing Media: Do NOT use carbon dioxide. Do NOT use halogenated agents. Use flooding quantities of water as spray.

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. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Use only with adequate ventilation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Corrosives area. Storage under a nitrogen blanket has been recommended.

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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits
CAS# 1305-78-8:
United Kingdom, WEL - TWA: 2 mg/m3 TWA
United Kingdom, WEL - STEL: 6 mg/m3 STEL
United States OSHA: 5 mg/m3 TWA
Belgium - TWA: 2 mg/m3 VLE
France - VME: 2 mg/m3 VME
Malaysia: 2 mg/m3 TWA
Netherlands: 5 mg/m3 STEL
Netherlands: 2 mg/m3 MAC
Spain: 2 mg/m3 VLA-ED

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 protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:                  Powder
Color:                          white, light yellow, light gray
Odor:                          Odorless.
pH:                            Not available
Vapor Pressure:                Negligible.
Viscosity:                     Not available
Boiling Point:                 2850 deg C @ 760 mmHg ( 5,162.00 F)
Freezing/Melting Point:        2570 deg C ( 4,658.00 F)
Autoignition Temperature:      Not available.
Flash Point:                   Not applicable.
Explosion Limits:              Lower:Not available
Explosion Limits:              Upper:Not available
Decomposition Temperature:     Not available
Solubility in water:           reacts with water with evolution of heat
Specific Gravity/Density:      3.3000g/cm3
Molecular Formula:             CaO
Molecular Weight:              56.08

Section 10 - Stability and Reactivity

Chemical Stability:
Absorbs carbon dioxide from the air. Hygroscopic: absorbs moisture or water from the air. Reacts with water releasing heat and forming alkaline Ca(OH)2 solution.

Conditions to Avoid:
Exposure to moist air or water.

Incompatibilities with Other Materials
Not available

Hazardous Decomposition Products
Calcium hydroxide.

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 1305-78-8: EW3100000
LD50/LC50: RTECS: Not available.
Carcinogenicity:
Calcium oxide -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:
See actual entry in RTECS for complete information.
Section 12 - Ecological Information
Not available
Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.
Section 14 - Transport Information

IATA
Shipping Name: CALCIUM OXIDE
Hazard Class: 8
UN Number: 1910
Packing Group: III

IMO
Shipping Name: CALCIUM OXIDE
Hazard Class: 8
UN Number: 1910
Packing Group: III

RID/ADR
Shipping Name: CALCIUM OXIDE
Hazard Class: 8
UN Number: 1910
Packing Group: III

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: C
Risk Phrases:
R 34 Causes burns.
Safety Phrases:
S 25 Avoid contact with eyes.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)
CAS# 1305-78-8: 1

Canada
CAS# 1305-78-8 is listed on Canada's DSL List

US Federal
TSCA
CAS# 1305-78-8 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date:
12/12/1997
Revision #9 Date
6/06/2006
Revisions were made in Sections:
9
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howsoever arising, even if the company has been advised of the possibility of such damages.

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