

# SAFETY DATA SHEET

Preparation Date: 07/10/2015

Revision Date: 07/10/2015

Revision Number: G1

**Product identifier**

**Product code:** C1142  
**Product Name:** CALCIUM OXIDE, FCC

**Other means of identification**

**Synonyms:**

- Airlock
- Bell CML(E)
- Bell CML(P)
- Burnt lime
- CALX
- CML 21
- CML 31
- CML 35
- Calcia
- Calcia (CaO)
- Calcium monoxide
- Calcium oxide
- Calcium oxide (CaO)
- Caloxal CPA
- Caloxol CP2
- Caloxol W3
- Calx usta
- Calxyl
- Chaux vive
- Desical P
- Gebrannter kalk
- Lime, burned
- Oxyde de calcium [French]
- QC-X
- Quick lime
- Quicklime
- Rhenosorb C
- Rhenosorb F
- Unslaked lime
- Vesta PP
- Wapniowy tlenek [Polish]

**CAS #:** 1305-78-8  
**RTECS #** EW3100000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Building material (In bricks, plaster, mortar, stucco); mfr aluminum, magnesium; dehairing hides; mfr glass, flotation of non-ferrous ores; mfr calcium salts and other industrial chemicals; lab: to absorb carbon dioxide; in fungicides, insecticides, drilling fluids, lubricants; clarification of cane and beet sugar juices; metal processing; agriculture and sewage treatment; in making chlorinated lime; dehydrating agent; Sulfur dioxide removal from stack gases; in poultry feeds; nutrient and/or dietary supplement food additive; Ground consolidation; pH control (ore/chemical processing: bauxite processing agent.

**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000  
<https://www.spectrumchemical.com>

**Order Online At:**

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

### Label elements

#### **Danger**

#### **Hazard statements**

Harmful if swallowed  
Causes severe skin burns and eye damage  
May cause respiratory irritation



#### **Hazards not otherwise classified (HNOC)**

Not Applicable

#### **Other hazards**

Reacts with water to evolve heat

### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wear protective gloves/protective clothing/eye protection/face protection  
Use only outdoors or in a well-ventilated area

### Precautionary Statements - Response

*Immediately call a POISON CENTER or doctor/physician*

*Specific treatment (see .? on this label)*

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

### Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Calcium Oxide 1305-78-8	1305-78-8	100	*

## 4. FIRST AID MEASURES

### First aid measures

#### General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

#### Skin Contact:

Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

#### Eye Contact:

Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

#### Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Immediate medical attention is required.

#### Ingestion:

Harmful if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

**Most important symptoms and effects, both acute and delayed****Symptoms**

Corrosive. Severe skin and eye irritation or burns. skin contact can produce inflammation and blistering. Skin contact may result in redness, pain, inflammation, itching, scaling. Severe eye irritation. May cause corneal injury. May cause blindness. Inflammation of the eye is characterized by redness, watering and itching. Inhalation of dust will produce irritation to gastrointestinal or respiratory tract, characterized by burning, sneezing, and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Over-exposure by inhalation may cause respiratory irritation.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician:**

Treat symptomatically

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

**5. FIRE-FIGHTING MEASURES****Extinguishing Media****Suitable Extinguishing Media:**

The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

**Unsuitable Extinguishing Media:**

Halogenated extinguishing agents. CO<sub>2</sub>.

**Specific hazards arising from the chemical****Hazardous Combustion Products:**

No information available.

**Specific hazards:**

Non-combustible  
Chlorine trifluoride reacts violently with calcium oxide producing flame  
Reacts with water to evolve heat and poisonous and corrosive gases

**Special Protective Actions for Firefighters****Specific Methods:**

For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

**Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Avoid breathing dust. Avoid dust formation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover powder spill with plastic sheet or tarp to minimize spreading.

**Methods for cleaning up** Neutralize the residue with a dilute solution of acetic acid. Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

#### Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Never add water to this product. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### Technical Measures/Storage Conditions:

Moisture sensitive. Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials.

#### Incompatible Materials:

Organic materials. Acids. Moisture. Oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Calcium Oxide 1305-78-8	5 mg/m <sup>3</sup> TWA	= 2 mg/m <sup>3</sup> TWA	= 2 mg/m <sup>3</sup> TWA	None

##### Canada

Components	Alberta	British Columbia	Ontario	Quebec
Calcium Oxide 1305-78-8	= 2 mg/m <sup>3</sup> TWA	= 2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWAEV

##### Australia and Mexico

Components	Australia	Mexico
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Calcium Oxide 1305-78-8	None	= 2 mg/m <sup>3</sup> TWA
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### Appropriate engineering controls

**Engineering measures to reduce exposure:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Goggles

**Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.

**Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical state:</b> Solid.	<b>Appearance:</b> Powder.	<b>Color:</b> White.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available	<b>Molecular/Formula weight:</b> 56.08
<b>Formula:</b> CaO	<b>Flammability:</b> Non-flammable	<b>Flash point (°C):</b> No data available
<b>Flashpoint (°C/°F):</b> No information available.	<b>Flash Point Tested according to:</b> Not available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>pH:</b> 12.5-12.8 (1.65 g/L aq sol.)
<b>Melting point/range(°C/°F):</b> 2572°C/ 4661°F	<b>Boiling point/range(°C/°F):</b> 2850°C/ 5162°F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Bulk density:</b> No information available	<b>Specific gravity:</b> 3.33	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Density (g/cm3):</b> No information available	<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available
<b>VOC content (g/L):</b> No information available	<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available
<b>Viscosity:</b> No information available	<b>Miscibility:</b> No information available	<b>Solubility:</b> Soluble in acids Soluble in Glycerol Soluble in sugar solution Practically insoluble in alcohol Very slightly soluble in cold water Very slightly soluble in hot water Insoluble in methanol Insoluble in diethyl ether Insoluble in n-octanol

## 10. STABILITY AND REACTIVITY

### Reactivity

Absorbs CO<sub>2</sub> from air. Reacts with fluorine to evolve much heat and some light.

Reacts with water. Addition of water to Quicklime has generated temperatures as high as 800 C. Some reports describe the reaction as violent.

In water, calcium oxide forms calcium hydroxide generating a large quantity of heat.

Ignition of sulfur, gunpowder, wood, and straw by heat of Quicklime-water reaction has been reported.

Liquid hydrofluoric acid and calcium oxide react very violently.

Calcium reacts with phosphorous pentoxide extremely violently when initiated by local heating.

Lime becomes incandescent when heated to near its melting point (2500 C).

### Chemical stability

**Stability:** Moisture Sensitive. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Incompatible materials. Exposure to water. Exposure to moisture.

**Incompatible Materials:** Organic materials. Acids. Moisture. Oxidizing agents.

**Hazardous decomposition products:** No information available

## Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## **11. TOXICOLOGICAL INFORMATION**

### Information on likely routes of exposure

#### **Principal Routes of Exposure:**

Skin. Eyes. Inhalation. Ingestion.

### Acute Toxicity

#### **Component Information**

*Calcium Oxide - 1305-78-8*

**LD50/oral/rat** = 500 mg/kg Oral LD50 Rat

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = No information available

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = 3059 mg/kg Intrap. LD50 Mouse

#### **Product Information**

**LD50/oral/rat** =

**VALUE- Acute Tox Oral** = 500mg/kg

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor** = No information available

**VALUE - Gas** = No information available

**VALUE - Dust/Mist** = No information available

### Symptoms

#### **Skin Contact:**

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



**Eye Contact:** Causes severe eye irritation and possible burns. May cause corneal injury. Symptoms may include burning sensation, tearing, redness, blurred vision, inflammation.

**Inhalation** Material is severely irritating to respiratory tract and mucous membranes and upper respiratory tract. May cause chemical burns to the upper respiratory tract with perforation of the nasal septum. Symptoms may include pain, burning sensation, inflammation, coughing, sneezing, labored breathing. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis, pulmonary edema.

**Ingestion** May be harmful if swallowed. Irritates gastrointestinal tract with possible burns to the mouth and throat. Swallowing may become painful, and difficult. A burning pain extends down the esophagus to the stomach. May affect respiration. Vomitus is thick and slimy due to mucous. Later it may contain blood shred of mucous membrane due to necrosis.

**Aspiration hazard** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Skin: Prolonged or repeated skin contact may cause brittle nails, dermatitis, thickening and cracking of the skin.  
Inhalation: Prolonged or repeated inhalation may cause nasal septum ulceration and perforation, irritation of the lungs. It may also cause bronchitis to develop with cough, phlegm, and/or shortness of breath..

**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Calcium Oxide	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available  
**STOT - repeated exposure** No information available  
**Target Organs:** Lungs. Respiratory system. Skin. Eyes.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects:

*Calcium Oxide - 1305-78-8*

**Freshwater Fish Species Data:** 1070 mg/L LC50 Cyprinus carpio 96 h static 1

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

#### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

#### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Calcium Oxide	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:**  
**Packing Group:** III  
**ERG No:** 157  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Symbol(s):** A

### TDG (Canada)

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

### ADR

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available

## 14. TRANSPORT INFORMATION

**Description:** No information available  
**CEFIC Tremcard No:** No information available

### IMO / IMDG

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant** No information available  
**MFAG:** No information available  
**Maximum Quantity:** No information available

### RID

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Classification Code:** No information available  
**Description:** No information available

### ICAO

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

### IATA

**UN-No:** UN1910  
**Proper Shipping Name:** Calcium oxide  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 8L  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Calcium Oxide	Present	Present KE-04588	Present	Present (1)-189	Present	Present	Present 215-138-9

### U.S. Regulations

#### Calcium Oxide

**Massachusetts RTK:** Present  
**New Jersey RTK Hazardous Substance List:** 0325  
**Pennsylvania RTK:** Present  
**Minnesota - Hazardous Substance List:** Present  
**California Directors List of Hazardous Substances:** Present

#### Calcium Oxide

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1210

FDA - 21 CFR - Total Food Additives 182.5210 184.1210

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

##### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

##### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Calcium Oxide	Not Listed	Not Listed	Not Listed	Not Listed

#### CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
Calcium Oxide	None	None	None	None	None

#### U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Calcium Oxide	Not Applicable	Not Applicable

#### Canada

##### WHMIS hazard class:

E Corrosive material

##### Calcium Oxide

E

##### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Calcium Oxide	1 %

#### Inventory

Components	Canada (DSL)	Canada (NDSL)
Calcium Oxide	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Calcium Oxide	Not listed	Not listed

#### EU Classification

##### R-phrases(s)

R35 - Causes severe burns.

Product code: C1142

Product name: CALCIUM OXIDE, FCC

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**S -phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
Calcium Oxide		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

C - Corrosive.

**16. OTHER INFORMATION**

## 16. OTHER INFORMATION

**Preparation Date:** 07/10/2015  
**Revision Date:** 07/10/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**