1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**Calcium Oxide, Enriched in Calcium**
Chemical Formula	CaO
Molecular Weight	56.08 g/mol
CAS No.	1305-78-8
EINECS No.	215-138-9
Synonyms	Quicklime, Lime
Supplier Address*	ISOFLEX USA PO Box 29475 San Francisco CA 94129 United States
Telephone	+1 415-440-4433
Fax	+1 415-563-4433
Emergency Phone Number (both supplier and manufacturer)	Infotrac/ +1 800-535-5053 *May include subsidiaries or affiliate companies/divisions
Email	iusa@isoflex.com
Website	www.isoflex.com
Preparation Information	ISOFLEX USA Product Safety +1 415-440-4433

2. HAZARDOUS IDENTIFICATION

Emergency Overview:

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 3 **Flammability = 0** **Reactivity = 0**

HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 3 **Flammability = 0** **Physical Hazard =0**

HEALTH HAZARD	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

Potential Health Effects

Acute Toxicity	No data available
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissues of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	May be harmful if swallowed. Causes burns.
Signs and Symptoms of Exposure	Cough, shortness of breath, headache, nausea, vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Sensitization	No data available
Additional Information	RTECS: EW3100000

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Calcium Oxide
CAS No.:	1305-78-8
Molecular Weight:	56.08 g/mol
Chemical Formula:	CaO

4. FIRST AID MEASURES

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move person out of dangerous area.
Inhalation	Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin Contact	Wash off with soap and plenty of water. Consult a physician.
Eye Contact	Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

5. FIREFIGHTING MEASURES

Flammable Properties	Flash point: not applicable Ignition temperature: no data available
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special Protective Equipment for Firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental Precautions	Do not let product enter drains.
Methods for Cleaning Up	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling — Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage — Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control Parameters	Update	Basis
Calcium oxide	1305-78-8	TWA	2 mg/m^3	1994-09-01	US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004:Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)
		TWA	5 mg/m^3	1989-03-01	US. Department of Labor - Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1000 Z-1-A
Remarks	The Final Rule Limit TWA of 5 mg/m^3 is not in effect as a result of reconsideration. The calcium oxide Transitional Limit of 5 mg/m^3 remains in effect, and employee exposures shall be kept below that level pursuant to the methods of compliance specified in 29 CFR 1910.1000(e).				
		TWA	5 mg/m^3	1993-06-30	US. Department of Labor - Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL) 29 CFR 1910.1000 Air Contaminants.

Personal Protective Equipment

Respiratory Protection — Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Where risk assessment shows air-purifying respirators are appropriate, use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand Protection — Handle with gloves.

Eye Protection — Use safety glasses.

Skin and Body Protection — Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Hygiene Measures — Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Powder with lumps
Color	White

Safety Data

pH	12.5-12.8 at 1.65 g/l at 25 °C (77 °F)
Melting Point	2614 °C (4737 °F)
Boiling Point	2850 °C (5162 °F)
Flash Point	Not applicable
Ignition Temperature	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Density	3.3 g/mL at 25 °C (77 °F)
Water Solubility	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Incompatible Materials	Acids, water
Conditions to Avoid	Moisture
Hazardous Decomposition Products	Hazardous decomposition product formed under fire conditions: calcium oxide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity No data available

Irritation and Corrosion	Skin - Human - Severe skin irritation Eyes - Rabbit - Severe eye irritation
Sensitization	No data available

Chronic Exposure

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Additional Information	RTECS: EW3100000

12. ECOLOGICAL INFORMATION

Elimination Information (Persistence and Degradability)	No data available
Ecotoxicity Effects	Toxicity to fish: LC50 - *Cyprinus carpio* (Carp) - 1070 mg/l - 96 h
Further Information on Ecology	No data available

13. DISPOSAL CONSIDERATION

Product	Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Proper Shipping Name	Calcium oxide
UN Number	1910
Class	8
Packing Group	III
Marine Pollutant	No
Poison Inhalation Hazard	No

IATA

Proper Shipping Name	Calcium oxide
UN Number	1910
Class	8
Packing Group	III

15. REGULATORY INFORMATION

OSHA Hazards	Corrosive
DSL Status	All components of this product are on the Canadian DSL list.
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (*De Minimis*) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard

16. OTHER INFORMATION

Prepared By	ISOFLEX USA PO Box 29475 San Francisco CA 94129 United States
Issuing Date	June 17, 2014
Revision Date	August 01, 2021
Revision Number	3
Revision Note	Required review and update

ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA	As Low As Is Reasonably Achievable

AMU	Atomic Mass Unit
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CEN	European Committee for Standardization
CLP	Classification, Labelling and Packaging (European Union)
CPR	Controlled Products Regulations (Canada)
CWA	Clean Water Act (USA)
DAC	Derived Air Concentration (USA)
DO	United States Department of Energy (USA)
DT	United States Department of Transportation (USA)
SL	Domestic Substances List (Canada)
EC50	Half Maximal Effective Concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	Environmental Protection Agency (USA)
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Containers
ICAO	International Civil Aviation Organization
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LOEC	Lowest-Observed-Effective Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
MSHA	Mine Safety and Health Administration (USA)
NCRP	National Council on Radiation Protection & Measurements (USA)
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association (USA)
NIOSH	National Institute for Occupational Safety and Health (USA)
NOEC	No Observed Effect Concentration
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PBT	Persistent Bioaccumulative and Toxic Chemical
PEL	Permissible Exposure Limit
PIH	Poisonous by Inhalation Hazard
RCRA	Resource Conservation and Recovery Act (USA)
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act (USA)
TDG	Transportation of Dangerous Goods (Canada)
TIH	Toxic by Inhalation Hazard
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations (Number)
VOC	Volatile Organic Compound
vPvB	Very Persistent Very Bioaccumulative Chemical
WGK	Wassergefährdungsklassen (Germany: Water Hazard Classes)
WHMIS	Workplace Hazardous Materials Information System

*One or more of the above-listed items may not appear in this document.

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between ISOFLEX USA (or any of its affiliates and subsidiaries) and the purchaser.

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(s).

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. ISOFLEX shall not be held liable for any damage resulting from handling or from contact with the above product.