SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Calcium hydroxide
CAS number	C2490
Synonyms	Calcium oxide, hydrated

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure) Target Organs - Respiratory system	Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Causes severe skin burns and eye damage. May cause respiratory irritation.
Precautionary statements:	
Prevention:	Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Keep only in original container.
Response	Immediately call a POISON CENTER or doctor/physician.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
Spills	Absorb spillage to prevent material damage.
Storage	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in corrosive resistant polypropylene container with a resistant inliner. Store in a dry place.
Disposal	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Calcium hydroxide	Calcium oxide, hydrated	1305-62-0	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do not induce vomiting. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed
Causes eye burns.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable extinguishing media	Carbon dioxide.

5.2 Specific hazards arising from the substance or mixture
Non-combustible. Contact with metals may evolve flammable hydrogen gas. Hazardous combustion products: calcium oxides.

5.3 Special protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point	No data available
Autoignition Temperature	No information available.
Explosion limits	
Upper	No data available.
Lower	No data available.

Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available
NFPA

Health	Flammability	Instability	Physical hazards
3	0	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adeqate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

6.2 Environmental precautions

Should not be released into the environment. See section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collector in suitable container for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry cool and well-ventilated place. Corrosives area.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Calcium hydroxide	(Vacated) TWA	5 mg/m3
	TWA	15 mg/m3
	TWA	5 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Calcium hydroxide	TWA	5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Calcium hydroxide	TWA	5 mg/m3

Biological occupational exposure limits
No information available

8.2 Exposure controls

Appropriate engineering controls
Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection
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 and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection
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.

Control of environmental exposure
No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Off-white
Odor	Odorless

Odor Threshold	No information available
pH	12.4 saturated solution
Melting Point/Range	580 °C / 1076 °F
Boiling Point/Range	2850 °C / 5162 °F
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	2.240
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	H2CaO2
Molecular Weight	74.09
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information
No information available

SECTION 10: Stability and reactivity

10.1 Reactivity
None known, based on information available.

10.2 Chemical stability
Stable under normal conditoins. Air sensitive. Moisture sensitive.

10.3 Possibility of hazardous reactions
Contact with metals may evolve flammable hydrogen.

10.4 Conditions to avoid
Avoid dust formation. Incompatible products. Excess heat. Exposure to air or moisutre over prolonged periods.

10.5 Incompatible materials
Strong oxidizing agents, metals, reducing agents, acids, bases.

10.6 Hazardous decomposition products
Calcium oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium hydroxide	7340 mg/kg (rat)	-	-

Skin corrosion/irritation
Causes skin burns.

Serious eye damage/eye irritation
Causes severe eye burns.

Respiratory or skin sensitization
Irritating to respiratory system.

Germ cell mutagenicity
No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Calcium hydroxide	1305-62-0	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure
Respiratory system.

Specific target organ toxicity - repeated exposure
No information available.

Reproductive toxicity
No information available.

Chronic effects
No information available.

11.2 Additional Information
No information available.

SECTION 12: Ecological information

12.1 Toxicity
Do not empty into drains.

12.2 Persistence and degradability
No information available

12.3 Bio accumulative potential
No information available

12.4 Mobility in soil
No information available

12.5 Results of PBT and vPvB assessment
No information available

12.6 Endocrine disrupting properties
No information available

12.7 Other adverse effects
The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Listed, Acute Health Hazard

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Not listed

SECTION 16: Other information

Issue date: 07/31/2024
Revision: 0

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.