

SAFETY DATA SHEET

CALCIUM HYDROXIDE

April 2024

SECTION 1. Identification of the substance or the mixture and of the company or the business

1.1 Product identification

Product: Hydrated Lime, Calcium Hydroxide, Ca(OH)₂

N° CAS: 1305-62-0

1.2 Identified relevant uses

Recommended use of the product: Laboratory reagents, Manufacturing of substances.

1.3 Supplier data for the SDS

Manufacturer: Cementos del Plata S.A.

Address: Ruta 98 Km25, CP. 33000- Treinta y Tres

Telephone: Office at Plant Treinta y Tres – (+598) 44501058

Email: clientes@cemplata.com.uy

1.4 Teléfonos de emergencias

National Fire Department: 911

Toxicological Information and Advisory Center (CIAT): (+598)2 1722

SECTION 2. Hazard Identification

2.1 Classification of the substance or mixture

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.2 Label Elements

Pictograms:



Warning word: Danger

Hazard Statements:

H315: Causes skin irritation

H318: Causes serious eye damage

H335: May cause respiratory irritation

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Precautionary Statements:

P261: Avoid breathing dust.

P264: Wash thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Principio del formulario

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Name: Calcium Hydroxide

Common Name(s) and Synonyms: Hydrated Lime Chemical

Formula: Ca(OH)₂

Molar Mass: 74.09 g/mol

CAS Number: 1305-62-0

EC Number: 215-137-3

Proportion: < 100%

Principio del formulario

SECTION 4. First Aid

4.1 First aid description

General recommendations: Show this safety data sheet to the attending doctor or requested emergency service.

If inhaled: Move the person to a ventilated area, expose them to fresh air.

In case of skin contact: Immediately remove all contaminated clothing. Rinse skin with water/shower.

In case of eye contact: Rinse with plenty of water. Immediately call an ophthalmologist. Remove contact lenses. Pull back the eyelid to ensure all lime dust has been removed. Do not rub the eyes.

If swallowed: Immediately drink water (maximum 2 glasses). Consult a doctor.

4.2 Description of the main acute and delayed symptoms and effects

Inhalation: Irritation of gastrointestinal tract or respiratory pathways. Bronchitis. Pulmonary respiratory congestion. Long-term inhalation exposure may cause permanent damage.

Skin contact: Irritation (possibly severe). Severe burns. Dermatitis.

Eye contact: Irritation, Severe burns. Ulcerations. Loss of vision or risk of serious eye injuries.

Ingestion: Burns.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Appropriate extinguishing media: Use extinguishing measures appropriate to the surrounding circumstances such as ABC powder, foam. Inappropriate extinguishing media: There are no limitations on extinguishing agents for this substance/mixture.

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5.2 Specific hazards arising from the substance or mixture

The nature of the decomposition products is unknown. Non-combustible. Potential for the formation of hazardous fire-related vapors in the surroundings.

5.3 Recommendations for firefighting personnel

Remaining in the risk area is only recommended with the use of self-contained breathing apparatus (SCBA) that provides independent respiratory protection from the environment. Skin protection should be ensured by maintaining a safe distance and wearing appropriate protective clothing.

SECTION 6. Medidas en caso de vertido accidental

6.1 Personal precautions, protective equipment, and emergency procedures

Do not use water on bulk material spills. Avoid inhaling dust. Avoid contact with the substance. Ensure adequate ventilation. Evacuate the danger area, follow emergency procedures, consult with experts. Personal protective equipment, see Section 8.

6.2 Environmental precautions

Do not allow the product to enter the sewage system. If this occurs, notify the appropriate authority.

6.3 Methods and material for containment and cleaning

Cover sewers. Contain, collect, and vacuum spills. Observe possible material restrictions (see indications in Sections 7 or 10). Collect dry and proceed with waste disposal. Avoid dust formation. Evacuate the area in the direction of the wind during cleaning operations to minimize dust exposure. Store spilled materials in sealed, dry containers.

SECTION 7. Handling and storage

7.1 Precautions for safe handling:

Use recommended protective equipment. Ensure good ventilation. General hygiene measures: Wash hands before breaks and at the end of the workday. Keep food and drinks away. See precautions in section 2.2.

7.2 Conditions for safe storage, including any incompatibilities:

Due to its highly hygroscopic nature, store in dry areas, free from moisture and away from outdoor exposure to prevent rain or flooding. The storage area should have good ventilation. Incompatible materials: acids, strong oxidizing agents, halogens, fluorine, hydrogen fluoride, carbon dioxide (CO₂), alcohols, water.

7.3 Specific end uses:

Apart from the uses mentioned in section 1.2, no other specific end uses are specified.

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SECTION 8. Personal protective equipment and exposure controls

8.1 Control parameters

Components with occupational exposure limit values.

8.2 Exposure controls/personal protection

Eye/face protection: Use eye protection equipment tested and approved according to relevant government standards, such as NIOSH (USA) or EN 166 (EU).

Safety goggles: snugly fitted to the contours of the face.

Skin protection:

Immersion Material: Nitrile rubber or neoprene.

Splashes Material: Nitrile rubber or neoprene.

Body protection: Wear protective clothing with long sleeves.

Respiratory protection: Necessary in the presence of dust. Protection with high-efficiency filters such as those specified in DIN EN 143, DIN 14387, P2 filter type.

SECTION 9. Physical and chemical properties

Physical state: Solid.

Appearance-color: White.

Flash point: Non-flammable.

Autoignition temperature: Not applicable.

Solubility in water: 1.650 gr/lit agua a 20°C. 100%

Molecular weight: 74.10 gr./mol.

SECTION 10. Stability and reactivity

10.1 Reactivity

The material will not react dangerously. Calcium hydroxide absorbs carbon dioxide from the air, forming calcium carbonate. It reacts slowly with water to form hydrated compounds, releasing heat and producing a strong alkaline solution. It chemically reacts with acids and other compounds and chemical elements to form calcium base compounds. Explosive when mixed with organic nitrogen compounds.

10.2 Chemical stability

Under normal conditions of use and storage (dry conditions), Calcium Hydroxide is stable. It gradually absorbs carbon dioxide from the air, forming calcium carbonate.

10.3 Possibility of hazardous reactions

The material will not undergo hazardous polymerization. Calcium Hydroxide reacts exothermically with acids to form calcium salts.

10.4 Conditions to avoid

Avoid moisture.

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SECTION 11. Toxicological information

Acute Toxicity

Oral LD50 - Rat - Female - > 2,000 mg/kg (OECD Test Guidelines 425)

Inhalation LC50 - Rat - Males and Females - 4 h - > 6.04 mg/l - Dust/Mist (OECD Test Guidelines 436)

Dermal LD50 - Rabbit - Males and Females - > 2,500 mg/kg (OECD Test Guidelines 402)

Skin Corrosion or Irritation

Skin - Rabbit Result: Irritates the skin. (OECD Test Guidelines 404)

Serious Eye Damage or Eye Irritation

Eyes - Rabbit Result: Irreversible effects on the eyes (OECD Test Guidelines 405) Observations: Risk of corneal opacity. Risk of blindness!

Respiratory or Skin Sensitization:

Data not available

Mutagenicity in Germ Cells:

Test Type: In vitro mammalian cell gene mutation assay Experimental system: Mouse lymphoma cells
Metabolic activation: with or without metabolic activation Method: OECD Test Guidelines 476 Result: Negative.

Carcinogenicity: Data not available.

Reproductive Toxicity: Data not available.

Specific Target Organ Toxicity

Single Exposure Inhalation: May irritate respiratory tract - Respiratory system.

Specific Target Organ Toxicity - Repeated Exposure: Data not available.

Aspiration Hazard:

Data not available.

SECTION 12. Ecotoxicological Information

Product generally non-hazardous at low concentrations. Frequently used in the food industry for the production of flours, beverages, toasts, and fried foods, and in the pharmaceutical industry due to its calcium content and low concentrations of impurities. Slightly reactive material, highly caustic material. The material increases the pH of water, posing risks to aquatic organisms if not dosed in a controlled manner.

SECTION 13. Considerations regarding disposal

Dispose of waste in accordance with applicable national and municipal regulations.

SECTION 14. Transportation Information

According to the Agreement on Facilitation of Dangerous Goods Transportation in MERCOSUR:

Main Hazard: Non-dangerous goods.

Risk Number: 80 (corrosive).

UN Number: 1910

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SECTIONN 15. Regulatory Information

The safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16. Other information

The information provided above is considered accurate but not exhaustive and should only be used as guidance. The information contained in this document is based on the current state of our knowledge and is applicable to appropriate safety precautions for the product.