
Safety Data Sheet

Product Name	Calcium oxide
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Calcium oxide

Synonyms: Quicklime Lime

CAS-No: 1305-78-8

EC-No.: 215-138-9

Molecular Formula: CaO

REACH Registration No: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Recommended Use: Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet:

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
Web: www.finarchemicals.com
- **E-Mail Address** safety.finar@aceto.com; info.finar@aceto.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

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

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:

Labeling according Regulation (EC) No 1272/2008

Pictogram



Signal word: Danger

Hazard statement(s)

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin 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.

Supplemental Hazard Statements

None

Reduced Labelling (<= 125 ml)

Safety Data Sheet

Product Name	Calcium oxide
--------------	---------------

Pictogram



Signal word Danger

Hazard statement(s)

H318 Causes serious eye damage.

Precautionary statement(s)

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

Supplemental Hazard Statements :

none

2.3. Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Calcium oxide

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Calcium oxide	1305-78-8	215-138-9	< = 100

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

- **If inhaled**
After inhalation: fresh air.
- **If Contact with skin**
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- **In case of eye contact**
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.
Remove contact lenses.
- **If swallowed**
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

- 4.2. Most important symptoms and effects, both acute and delayed:**
The most important known symptoms and effects are described in the labelling (see section 2.2)
- 4.3. Indication of any immediate medical attention and special treatment needed:**
No information Available

SECTION 5: FIREFIGHTING MEASURES

- 5.1. Extinguishing media:**
Suitable Extinguishing Media- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media- DO NOT USE WATER, Carbon dioxide (CO2)
- 5.2. Special hazards arising from the substance or mixture:**
Nature of decomposition products not known.
Not combustible.
Ambient fire may liberate hazardous vapours.
- 5.3. Advice for firefighters:**
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
- 5.4 Further Information:**
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling:****Advice on safe handling**

Keep workplace dry. Do not allow product to come into contact with water.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities:

Tightly closed. Dry.

Store under inert gas. Moisture sensitive.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters:****Ingredients with workplace control parameters****8.2. Exposure Controls:****Appropriate Engineering Controls:**

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment:**Eye & Face Protection-**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Hand Protection –

Full contact:

Glove Material: Nitrile Rubber
Glove Thickness: 0.11 mm
Break Through Time: >480 min

Splash contact:

Glove Material: Nitrile Rubber
Glove Thickness: 0.11 mm
Break Through Time: >480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Body Protection

Protective clothing.

Respiratory Protection

required when dusts are generated.

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental Exposure Controls

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Appearance:** White
- **Physical State:** Solid
- **Odor:** Odorless
- **Odor Threshold:** Not applicable
- **pH:** 12.6 at 20 °C
- **Melting Point:** 2570 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** No data available
- **Relative Density:** 3.31 at 22 °C
- **Density:** No data available
- **Auto-Ignition Temperature:** No data available
- **Decomposition Temperature:** No data available
- **Volatility:** No data available
- **Bulk Density:** 800 - 1.200 kg/m³
- **Viscosity, dynamic:** Not applicable
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** Not applicable for inorganic substances
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

- **Boiling Point:** 2850 °C
- **Specific Gravity:** No data available
- **Flash Point:** Not applicable
- **Water Solubility:** Not available

9.2. Other information:**Molecular Formula:** CaO**Molecular Weight:** 56.08 g/mol**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

Yes

10.2. Chemical stability:

Moisture sensitive. Air sensitive.

10.3. Possibility of hazardous reactions:

Risk of explosion with:

Hydrogen halides, Water

Risk of ignition or formation of inflammable gases or vapours with:

Alcohols, Hydrogen fluoride, hydrogen sulphide,

Exothermic reaction with:

halogen-halogen compounds, Fluorine, Hydrazine hydrate, Glycerine, Acids, sugars.

10.4. Conditions to avoid:

Avoid dust formation. Exposure to air. Incompatible products. Exposure to moist air or water.

10.5. Incompatible materials:Acids, Strong oxidizing agents, Halogens, Fluorine, Hydrogen fluoride, Carbon dioxide (CO₂), Alcohols, Water**10.6. Hazardous decomposition products:**

In the event of fire: see section 5

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute Oral toxicity**

LD50 Oral - Rat - female - > 2.000 mg/kg

(OECD Test Guideline 425)

Acute inhalation toxicity

LC50 Inhalation - Rat - male and female - 4 h - > 6,04 mg/l

(OECD Test Guideline 436)

Acute dermal toxicity

No data available

Skin irritation

Skin - Rabbit

Result: Severe skin irritation

(OECD Test Guideline 404)

Eye irritation

Eyes - Rabbit

Result: Risk of serious damage to eyes.

(OECD Test Guideline 405)

Sensitisation

No data available

Germ cell mutagenicity

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

Carcinogenicity

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.

Reproductive toxicity

No data available

Teratogenicity

No data available

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further Information:

RTECS: EW3100000

Cough, Shortness of breath, Headache, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:**Toxicity to fish**

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 50,6 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 49,1 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata - 184,57 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - 300,4 mg/l - 3 h
(OECD Test Guideline 209)

12.2 Persistence and degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulate potential:

No data available

12.4 Mobility in soil:

No data available

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:

Harmful effect due to pH shift.

Discharge into the environment must be avoided.

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Product

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.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	1910		
14.2 Proper shipping name	Not dangerous goods		
14.3 Class	8		
14.4 Packing group	III		
14.5 Environmentally hazardous	No		
14.6 Special precautions for user	No data available		

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not Applicable

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not Applicable

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 30/09/2021

Safety Data Sheet

Product Name	Calcium oxide
---------------------	----------------------

Disclaimer:

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