

### SECTION 1: Identification

#### 1.1. Product identifier

Trade name	: CALCIUM OXIDE
IUPAC name	: calcium oxide
EC-No.	: 215-138-9
CAS-No.	: 1305-78-8
UN-No. (ADR)	: 1910
Product code	: 103055xxx
Formula	: CaO

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

Recommended uses and restrictions	: For laboratory use only
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#### 1.3. Supplier's details

Labchem (Pty)Ltd  
 6 Wakefield Road  
 Founders Hill  
 1609 Johannesburg - South Africa  
 T +27 11 452 1116 - F +27 86 588 0293  
[techlab@labchem.co.za](mailto:techlab@labchem.co.za) - [www.labchem.co.za](http://www.labchem.co.za)

#### 1.4. Emergency telephone number

Emergency number	: +27 11 452 1116
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Acute toxicity (dermal) Not classified	
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Hazardous to the aquatic environment - Acute Hazard	Not classified
Hazardous to the aquatic environment - Chronic Hazard	Not classified
Full text of H statements	: see section 16

#### 2.2. Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :



GHS05

GHS07

Signal word (GHS-ZA) : Danger

Hazard statements (GHS-ZA) : H314 - Causes severe skin burns and eye damage.  
 H335 - May cause respiratory irritation.

Precautionary statements (GHS-ZA) :

- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor.
- P312 - Call a POISON CENTER or doctor if you feel unwell.
- P321 - Specific treatment (see supplemental first aid instruction on this label).

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According to SANS 10234:2019 and SANS 11014:2010

P363 - Wash contaminated clothing before reuse.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

Adverse physicochemical, human health and environmental effects : May cause respiratory irritation, Causes severe skin burns and eye damage, Causes serious eye damage.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

IUPAC name : calcium oxide

Substance identification codes: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
quicklime (Main constituent)	(CAS-No.) 1305-78-8	≥ 96	Acute Tox. Not classified (Dermal) Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute Not classified Aquatic Chronic Not classified

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.  
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.  
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.  
Symptoms/effects after skin contact : Burns.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : 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 : Water spray. Dry powder. Foam.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

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### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

CALCIUM OXIDE (1305-78-8)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Calcium Oxide
OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Regulatory reference	Government Notice. R: 1179

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves  
Eye protection : Safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : Dust production: dust mask with filter type P1

Personal protective equipment symbol(s):



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : No data available  
Molecular mass : 56.08 g/mol  
Colour : No data available  
Odour : No data available  
Odour threshold : No data available  
pH : 12.8 Temp.: 25 °C Concentration: 1,65 g/L  
pH solution : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Relative evaporation rate (ether=1) : No data available  
Melting point : 2572 °C Atm. press.: 101325 Pa Decomposition: 'no' Sublimation: 'no'  
Freezing point : Not applicable  
Boiling point : 2850 °C Atm. press.: 101325 Pa Decomposition: 'no'  
Flash point : Not applicable  
Auto-ignition temperature : Not applicable

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Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 0 mm Hg Temp.: 25 °C
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: 3.3 g/cm <sup>3</sup> Type: 'density' Temp.: 25 °C
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: 230.303 mm <sup>2</sup> /s
Viscosity, dynamic	: 760 mPa·s Temp.: '20°C' Parameter: 'dynamic viscosity (in mPa s)'
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified

CALCIUM OXIDE (1305-78-8)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:US Federal Register 38: 187, Part 1500, Section 41, 1973.

Skin corrosion/irritation	: Causes severe skin burns. pH: 12.8 Temp.: 25 °C Concentration: 1,65 g/L
Serious eye damage/irritation	: Causes serious eye damage. pH: 12.8 Temp.: 25 °C Concentration: 1,65 g/L
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified

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CALCIUM OXIDE (1305-78-8)	
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.413 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Aspiration hazard : Not classified

CALCIUM OXIDE (1305-78-8)	
Viscosity, kinematic	230.303 mm <sup>2</sup> /s

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.  
Hazardous to the aquatic environment, short-term (acute) : Not classified.  
Hazardous to the aquatic environment, long-term (chronic) : Not classified.

CALCIUM OXIDE (1305-78-8)	
LC50 fish 1	387 mg/l Test organisms (species): Poecilia reticulata
EC50 72h algae (1)	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC chronic fish	100 mg/l Test organisms (species): other:Tilapia nilotica Duration: '46 d'

#### 12.2. Persistence and degradability

CALCIUM OXIDE (1305-78-8)	
Persistence and degradability	No additional information available

#### 12.3. Bioaccumulative potential

CALCIUM OXIDE (1305-78-8)	
Bioaccumulative potential	No additional information available

#### 12.4. Mobility in soil

CALCIUM OXIDE (1305-78-8)	
Mobility in soil	No additional information available

#### 12.5. Other adverse effects

Ozone : Not classified  
Other adverse effects : No additional information available




### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
<b>14.1. UN number</b>		
1910	1910	1910
<b>14.2. Proper Shipping Name</b>		
CALCIUM OXIDE	CALCIUM OXIDE	Calcium oxide
<b>14.3. Transport hazard class(es)</b>		
8	8	8
		 Not applicable
<b>14.4. Packing group</b>		
III	Not applicable	III

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According to SANS 10234:2019 and SANS 11014:2010

SANS	IMDG	IATA
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available		

### 14.6. Special precautions for user

#### - SANS

Special provisions (SANS)	: 106
Limited quantities (SANS)	: 5 kg
Limited quantities (SANS)	: 5 kg
Packagings, large packagings and IBCs Packing instructions (SANS)	: P002, IBC03, LP02
Packagings, large packagings and IBCs Special packing instructions (SANS)	: B3
Portable tank and bulk containers instructions (SANS)	: T1
Portable tank and bulk container special provisions (SANS)	: TP33

#### - IMDG

Special provisions (IMDG)	: 960
Properties and observations (IMDG)	: Not subject to the provisions of this Code but may be subject to provisions governing the transport of dangerous goods by other modes.

#### - IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y845
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 860
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 864
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A803
ERG code (IATA)	: 8L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health, and environmental national regulations specific for the product

Regulatory reference	: SANS 10234:2008; SANS 11014:2010; SANS 10228:2012;SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.
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## SECTION 16: Other information

Issue date	: 20/07/2020
Revision date	: 20/07/2025

Full text of H-statements:

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

SDS South Africa

*The data provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The data relates to the specific product as named and is intended as a guide to the safe handling of the product in all its facets. The data may no longer be valid if the product is used in any process or in combination with other products. This SDS is not a quality specification nor any form of guarantee.*