

Calcium Hydroxide (Lime Cake).

Identification of the Material and Supplier

Supplier Name: BOC
Address: Priestley Road, Worsley, Manchester M28 2UT
Telephone: 0800 111 333
Emergency telephone: 0800 111 333
Synonyms: CALCIUM HYDRATE, CAUSTIC LIME, HYDRATED LIME, SLAKED LIME.
Uses: Laboratory reagent, neutralising agent, fertiliser.

Hazards Identification

Non-flammable, solid. Caustic, may cause eye, skin and respiratory tract irritation and burns.

Composition / Information On Ingredients Typical analysis

Ingredient	Formula	Conc.	CAS No.	EINECS no.
Calcium hydroxide	Ca(OH) ₂	>92%	1305-62-0	215-137-3
Silica	SiO ₂	2.8%	7631-86-9	
Aluminium oxide	Al ₂ O ₃	0.3%	1344-28-1	
Iron (III) oxide	Fe ₂ O ₃	0.2%	1225-92-11	
Total Nitrogen	N	0.3%		

First Aid Measures

Eye

Hold eyelids apart and flush continuously with water, for at least 15 minutes.
Seek medical attention.

Inhalation

If over exposure occurs leave exposure area immediately, or remove affected persons. If irritation persists, seek medical attention.

Skin

Remove contaminated clothing and gently flush affected areas with water. Continue to flush with water until skin no longer feels soapy. Seek medical attention. Launder clothing before reuse.

Ingestion

Wash out mouth with water. If swallowed do not induce vomiting. Seek medical attention.

Advice to Doctor

CORROSIVE POISONING TREATMENT: In treating corrosive poisoning, DO NOT INDUCE VOMITING; DO NOT ATTEMPT GASTRIC LAVAGE; and DO NOT ATTEMPT TO NEUTRALISE THE CORROSIVE SUBSTANCE. Immediately dilute the corrosive substance by having the patient drink milk or water.

First Aid Facilities

Eye wash facilities should be available.

Fire Fighting Measures

Flammability:

Non flammable. No fire or explosion hazard exists. May evolve calcium oxides when heated to decomposition.

Fire and Explosion:

Non flammable. Evacuate area and contact emergency services. Remain upwind and notify those downwind of Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

Extinguishing:

Non flammable. Prevent contamination of drains or waterways, absorb runoff with sand or similar.

Accidental Release Measures**Spillage:**

If spilt, absorb with sand or similar. Wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Collect and place in sealable containers for disposal. Caution: Spill site may be slippery.

Handling and Storage**Handling:**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas (eg. if container is damaged).

Storage:

Store in cool, dry, well ventilated area, removed from oxidising agents, acids and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

Exposure Controls / Personal Protection**Ventilation:**

Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended.

Exposure Standards:

CALCIUM HYDROXIDE (1305-62-0) WEL – LTEL 5mg/m³ (EH40/2005)

PPE:

Wear coveralls, splash-proof goggles and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear a PVC apron, a faceshield and rubber boots.

Physical and Chemical Properties

Appearance: White to grey solid

Odour: Odourless

pH: 12.4 (Saturated solution)

Molecular weight: 74.1

Vapour Pressure: negligible

Vapour Density: not available

Boiling Point: not relevant

Melting Point: not available

Evaporation Rate: non-volatile

Solubility (water): 0.185 g/L @ 0°C

Specific Gravity (dry): 2.24

% Volatiles: not relevant

Flammability: non flammable

Flash Point: not relevant

Upper Explosion Limit: not relevant

Lower Explosion Limit: not relevant

Autoignition Temperature: not available

Decomposition Temperature: 580°C

Stability and Reactivity**Reactivity:**

Incompatible with oxidising agents (eg. peroxides), acids (eg. sulfuric acid), active metals (eg. aluminium, potassium, magnesium), and heat and ignition sources. Violent reactions with malic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropane and phosphorus.

Decomposition Products:

May evolve calcium oxides when heated to decomposition.

Toxicological Information

Health Hazard Summary: Corrosive. Use safe work practices to avoid eye or skin contact. Due to the low vapour pressure of this product an inhalation hazard is not anticipated under normal conditions. If diluted, the potential for corrosive effects will be reduced.

Eye: Corrosive -severe irritant. May result in pain, redness, corneal burns and ulceration with possible permanent damage with prolonged contact.

Inhalation: Slightly corrosive -irritant. Over exposure at high levels may result in irritation of the nose and throat, coughing, nausea and nasal inflammation. Low volatility markedly reduces inhalation hazard.

Skin: Corrosive -severe irritant. Contact may result in itching, pain, redness, rash and dermatitis. Prolonged contact may result in burns.

Toxicological Information	<p>Ingestion: Corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.</p> <p>Toxicity Data: CALCIUM HYDROXIDE (1305-62-0) LD50 (Ingestion) : 7300 mg/kg (mouse)</p>
Ecological Information	<p>Environment:</p> <p>Water: If released into watercourses, alkaline products may change the pH of the water. Fish will die if the pH reaches 10-11.</p> <p>Soil: May leach to groundwater with toxic effects on aquatic life as above.</p> <p>Atmosphere: Not expected to reside in the atmosphere. Particles released to atmosphere should be removed by gravity and/or be rained out.</p>
Disposal Considerations	<p>Waste Disposal: Dispose of to an approved landfill site.</p> <p>Spillage: Large spills should be scooped up and transferred to clean dry containers for disposal or re-use. Small spills can be diluted with large volumes of water and then neutralised with dilute acid (eg. 3 mol/L hydrochloric acid) or similar. Contact the manufacturer for additional information.</p> <p>Legislation: Dispose of in accordance with relevant local legislation.</p>
Transport Information	<p>Transport: Not classified as a Dangerous Good according to ADR.</p> <p>UN Number: None Allocated</p> <p>Dangerous Goods Class: None Allocated</p> <p>Subsidiary Risks: None Allocated</p> <p>Packing Group: None Allocated</p>
Regulatory Information	<p>Risk phrases: R34 Causes burns R36 Irritating to eyes R37 Irritating to respiratory system R38 Irritating to skin R41 Risk of serious damage to eyes</p> <p>Safety phrases: S22 Do not breathe dust S26 In case of contact with eyes, rinse immediately with plenty of water, and seek medical advice. S39 Wear eye/face protection S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)</p> <p>Abbreviations: mg/m³ - Milligrams per cubic metre ppm - Parts Per Million WEL - Workplace Exposure Limit LTEL - Long-term exposure limit (for 8 hour period) CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.</p>
Other Information	

The customer should provide this Safety Data Sheet to any person involved in the material's use or further distribution. BOC Limited requests the users (or distributors) of this product to read this Safety Data Sheet carefully before usage.

The information contained within the Safety Data Sheet relates only to the specific materials designated and may not be valid for such material used in combination with other material or in any process. Information is given in good faith and is based on the latest information available to BOC Limited and is, to the best of BOC Limited knowledge and belief, accurate and reliable at the time of preparation. However, no representation, warranty or guarantee is made as to the accuracy, reliability or completeness of the information, and BOC Limited assumes no responsibility and disclaims any liability incurred in using this information.

BOC

Customer Service Centre, BOC, 10 Priestley Road, Guildford, Surrey GU2 7XY, United Kingdom
UK Phone 0800 111 333, Fax 0800 111 555, ROI Phone 01 409 1800, Fax 01 409 1801, www.boc.com