

## Safety Data: Quicklime

- 1 Identification:**  
**Chemical Name:** Calcium Oxide  
**Trade Name:** Burnt Lime, Microlime<sup>®</sup>, Granulime<sup>®</sup>, Finelime<sup>®</sup>, Birch Biolime<sup>®</sup>.  
**Synonyms:**  
 Quicklime, burnt lime, slaked lime.
- Supplier:**  
 Singleton Birch Ltd, Melton Ross Quarries,  
 Barnetby, North Lincolnshire, DN38 6AE.  
**Tel:** 01652 686000 **Fax:** 01652 686081
- Emergency Tel:** 01652 686000 (24Hr)
- 2 Composition/Information on ingredients:**  
**Composition:**  
 Calcium Oxide CaO > 90%.  
 Small quantities of calcium carbonate and trace elements.  
 See Sales Specifications for full detail.  
**CAS Number:** 1305-78-8  
**EINECS Number:** 215-138-9  
**UN Number:** 1910  
 See section 15 for risk and safety detail.
- 3 Health Hazard Identification:**  
 Irritating to eyes and skin. Risk of serious damage to eyes. May cause burns in the presence of moisture. Generates heat in contact with water.  
**Workplace Exposure Limit:**  
 2 mg/m<sup>3</sup>, (8hr TWA).
- 4 First Aid Measures:**  
**Skin Contact:**  
 Irritant – may cause burns in the presence of moisture. Remove contaminated clothing and wash affected area immediately with plenty of water.  
**Eye Contact:**  
 Irritant – may cause serious damage to eyes if left untreated. SPEED IS ESSENTIAL. Irrigate immediately with eyewash or clean water until medical help is obtained. Seek medical attention as soon as possible.  
**Inhalation:**  
 Irritating to respiratory tract, may cause swelling of respiratory tract. Remove from exposure and irrigate nose and throat with water for at least 20 minutes. If necessary seek medical attention.  
**Ingestion:**  
 Unlikely to cause any reactions. Larger doses may irritate gastrointestinal tract. Do not induce vomiting. Wash mouth with water and drink copious quantities of water. Seek medical advice if in doubt.  
**Further medical treatment:**  
 Symptomatic, if necessary. No known delayed effects. Prolonged or repeated contact with skin may result in more severe irritation or dermatitis.
- Prolonged repeated inhalation of high dust concentrations may cause ulceration and perforation of the nasal septum and pneumonitis.  
 Ensure that eyewash facilities are readily available where Quicklime is handled.
- 5 Fire Fighting Measures:**  
**Flammability:**  
 Non flammable, inhibits the spread of flame  
**Extinguishing Media:**  
 No special fire fighting procedure or explosion hazard is identified. Substance reacts violently with water and generates heat. Risk of igniting combustible materials when wetted.
- 6 Accidental Release Measures:**  
**Leaks and Spills:**  
 Contain spillage and keep dry if possible. Use vacuum suction unit, or shovel into bags (using appropriate protective clothing - see Section 8). Cover or enclose area if possible to avoid unnecessary dust hazard. Avoid contamination of drains and watercourses. Spillage into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.
- 7 Handling and Storage:**  
**General:**  
 Avoid contact with skin and eyes, use barrier cream where necessary. Avoid inhalation of dust.  
**Storage:**  
 Store in a cool dry environment free from draughts. Bulk storage should be in a purpose-built silo. Product in bags should be stored in draught-free brick or concrete building. Quicklime must not be allowed to come into contact with water as it generates intense heat, nor should it be stored on a flammable structure or with flammable materials.
- 8 Exposure Controls/Personal Protection:**  
 Handling systems should preferably be enclosed, or suitable ventilation installed to maintain atmospheric dust below WEL.  
**Respiratory Protection:**  
 Wear suitable gloves, overalls and eye/face protection. Wear suitable respiratory protection equipment if exposure to atmospheric dust levels above the occupational exposure standard is likely. Use approved dust respirators to EN149 category FFP2, or air-stream helmet for heavy exposure.  
**Clothing:**  
 Rubber, leather or fabric/composite gloves provide suitable hand protection.  
 Wide vision full goggles to BS2092 grade 1 impact, with anti-mist for eye protection.

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Long sleeved overalls, close fitting at openings. Boots that resist dust penetration.

## 9 Chemical and Physical Properties:

### Appearance and Odour:

Supplied in various sizes from large lump to powder. White solid with slight earthy odour.

### Chemical Properties:

Aqueous suspensions are alkaline (pH 12.4, approx 2g/l).

**Chemical Formula:** CaO

**Relative Molecular Mass:** 56.08

**Density:** 3.35 g/cm<sup>3</sup>

**Bulk Density:** 0.8 - 1.2 g/cm<sup>3</sup>

**Solubility:** 1.33 g/litre at 10 °C (reacts with water to form calcium hydroxide)

**Melting Point:** 2570 °C

## 10 Stability and Reactivity:

**Long term Stability:** Stable

### Conditions to Avoid:

Avoid exposure to air or moisture.

### Materials to Avoid:

Reacts vigorously with acids to form calcium salts, reacts with aluminium lead and brass in the presence of moisture. Reacts violently with moisture, generating intense heat.

**Hazardous Decomposition:** None

## 11 Toxicological Information:

Symptoms of Exposure

**Inhalation:** High concentration of dust may be irritant to the respiratory tract. Gross inhalation may cause inflammation, ulceration, perforation of nasal septum and pneumonitis.

**Skin Contact:** Irritant in the presence of moisture. May cause burns.

**Eye Contact:** Painful irritant, with risk of severe and permanent damage to eyes.

**Ingestion:** May cause corrosion damage to the gastrointestinal tract.

**Long term exposure:** Prolonged and repeated skin contact may cause dermatitis.

## 12 Ecological Information:

### Ecotoxicity:

The product is considered to be non toxic. LC50 aquatic toxicity values are > 100 mg/l.

### Mobility:

Sparingly soluble in water (as calcium hydroxide) to form alkaline solution. Low mobility in most ground conditions.

### Persistence and Degradation:

Non bio-degradable - reacts with moisture to form calcium hydroxide and reacts with atmospheric and dissolved carbon dioxide to form calcium carbonate (chalk).

### Bioaccumulative Potential:

The product has no potential to accumulate in the food chain.

## 13 Disposal Considerations:

### Waste Disposal:

Dispose of only at an approved licensed waste disposal site.

## 14 Transport Information:

**ADR (Road) Classification:** Not classified.

**RID (Rail) Classification:** Not classified.

**IMDG (Sea) Classification:** Not classified.

**IATA (Air) Classification:** Class 8 Packaging Group III.

## 15 Regulatory Information:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Statutory Instrument 2002 No. 1689

**Classification for Conveyance:** None

**Classification for supply:** Irritant

### Safety Phrases:

S22 Do not breathe dust.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S39 Wear eye / face protection.

### Risk Phrases:

R38 Irritating to skin

R41 Risk of serious damage to the eyes.

## 16 Other Information:

### Safety Data:

SD10 Chalk

**SD20 Quicklime**

SD21 Birchgro

SD30 Ultralime Hydrated Lime

SD40 Aqualime

SD60 Micromag

SD70 Hydraulic Lincolnshire Lime

Prepared in accordance with Directive 2001/58/EC

The information contained in this data sheet is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control.