

## Lime Putty

### 1. Identification of the substance and the Company

**Chemical Name:** Aqueous suspension of Calcium hydroxide.

**REACH Pre-registration Number:** 05-2114268032-58-0000 (calcium hydroxide)

**Uses of the Chemical:** Information currently being collected and evaluated by SIEF (Substance Information Exchange Forum).

**Trade Name:** Singleton Birch Lime Putty

**Synonyms:** Calcium hydroxide, Slaked lime.

**Supplier:** Singleton Birch Ltd, Melton Ross Quarries, Barnetby, North Lincolnshire, DN38 6AE.

**Tel:** +44 (0)1652 686000 **Fax:** +44 (0)1652 686081

**Emergency Tel:** +44 (0)1652 686000 (24Hr)

### 2. Hazards Identification



Xi Irritant

The product can produce severe skin damage (alkaline burns) in humans, especially if prolonged skin contact takes place.

### 3. Composition/Information on Ingredients

**Composition:** Calcium hydroxide, Ca(OH)<sub>2</sub> 10% - 40% (depending on product).  
See Individual Product Sales Specifications for full detail.

**Safety Phrases:** S2, S25, S26, S37/39 (See Section 16 for full text of phrases)

**Risk Phrases:** R37/38, R41 (See Section 16 for full text of phrases)

**CAS Number:** 1305-62-0 (of active ingredient Ca(OH)<sub>2</sub>)

**EINECS Number:** 215-137-3 (of active ingredient Ca(OH)<sub>2</sub>)

### 4. First-aid Measures

**Inhalation:** Not applicable.

**Skin Contact:** Remove from exposure. Wash affected area immediately with plenty of water for at least 15 to 20 minutes. Remove contaminated clothing. Seek medical attention if exposed area is large or if irritation persists. The product can produce severe skin damage (alkaline burns) in humans, especially if prolonged skin contact takes place.

**Eye Contact: SPEED IS ESSENTIAL.** Remove from exposure. Irrigate immediately with plenty of water for at least 15-20 minutes. Seek medical attention as soon as possible. May cause serious damage to eyes if left untreated.

**Ingestion:** Remove from exposure. Wash mouth with water and drink plenty of water. Do not induce vomiting. Seek medical attention as soon as possible. May irritate gastrointestinal tract.

**General:** No known delayed effects. Seek medical attention. Ensure that eyewash/shower facilities are available.

### 5. Fire-Fighting Measures

Non flammable and Non combustible.

**Extinguishing Media:** The product does not burn. Use Powder, Foam or CO<sub>2</sub> type extinguisher.

**General:** When heated above 580°C, calcium hydroxide decomposes to produce calcium oxide and water. Calcium oxide reacts with water and generates heat. This may cause risks to flammable materials.

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## 6. Accidental Release Measures

**Personal Precautions:** Avoid contact with skin and eyes.

**Environmental Precautions:** Contain spillage. Avoid contamination of drains and watercourses.

**Cleaning Methods:** Contain spillage and absorb using earth or sand. Spillage into watercourses must be alerted to the Environment Agency and/or other appropriate regulatory bodies.

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## 7. Handling and Storage

**Handling:** Avoid contact with skin and eyes. (**Workplace Exposure Limit (WEL):** 5 mg.m<sup>-3</sup>, (8hr TWA) of active ingredient Ca(OH)<sub>2</sub>).

**Storage:** Store in a cool environment. Bulk storage should be in a purpose-built silo / tanks. Keep away from acids / nitro compounds. Keep out of reach of children. Do not use aluminium for transport or storage.

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## 8. Exposure Controls/Personal Protection

**Exposure Limit Values:** Workplace Exposure Limit (WEL), 5 mg.m<sup>-3</sup>, (8hr TWA) of active ingredient Ca(OH)<sub>2</sub>

**Occupational Exposure Controls:** Not applicable.

**Individual Protection Measures:**

**Respiratory Protection:** Wear suitable respiratory protection that will afford adequate protection.

**Hand Protection:** Wear suitable gloves that will afford adequate protection.

**Eye Protection:** Wear suitable eye protection (safety glasses/safety goggles/face shield) that will afford adequate protection.

**Clothing:** Wear suitable overalls and safety footwear that will afford adequate protection.

**Environmental Exposure Controls:** Not applicable.

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## 9. Physical and Chemical Properties

**General Information:**

**Appearance:** Creamy viscous paste

**Odour:** Slight earthy odour

**Important Health, Safety & Environmental Information:**

**pH:** Aqueous suspensions are alkaline, pH 12.4, saturated solution at 25°C

**Solubility in water:** 1850mg/l at 0°C, 1650mg/l at 20°C, 770mg/l at 100°C for active ingredient Ca(OH)<sub>2</sub>

**Melting Point:** For active ingredient Ca(OH)<sub>2</sub> decomposes at 580°C to form calcium oxide (quicklime)

**Boiling Point:** Not applicable

**Specific Gravity:** 2.24g/cm<sup>3</sup> at 20°C for active ingredient Ca(OH)<sub>2</sub>

**Bulk Density and Viscosity:** Depends on the dry matter content of the active ingredient Ca(OH)<sub>2</sub>

**Vapour Pressure:** Non volatile

**Partition Coefficient:** Not applicable

**Flash Point:** Not applicable

**Flammability:** Not flammable

**Explosive Properties:** Not flammable

## 10. Stability and Reactivity

**Long term Stability:** Stable

**Conditions to Avoid:** Avoid exposure to air to minimise degradation (carbonation). When heated above 580°C, calcium hydroxide decomposes to produce calcium oxide and water.

**Materials to Avoid:** The active substance  $\text{Ca}(\text{OH})_2$  reacts with carbon dioxide to form calcium carbonate.  $\text{Ca}(\text{OH})_2$  reacts with acids to form calcium salts.  $\text{Ca}(\text{OH})_2$  reacts with aluminium and brass, under formation (or release) of hydrogen gas.

**Hazardous Decomposition Products:** Calcium oxide absorbs moisture and carbon dioxide from air to form calcium carbonate, which is a common material in nature.

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## 11. Toxicological Information

### Inhalation

Acute Effect: Irritant.

Long Term Exposure: High concentration of mist may be irritant to respiratory tract.

### Ingestion

Acute Effect: Calcium hydroxide is not toxic.

Long Term Exposure: May cause irritation to the gastrointestinal tract.

### Skin Contact

Acute Effect: Irritant.

Long Term Exposure: The product can produce severe skin damage (alkaline burns) in humans, especially if prolonged skin contact takes place.

### Eye Contact

Acute Effect: Painful irritant.

Long Term Exposure: Risk of severe and/or permanent damage to eyes.

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## 12. Ecological Information

**Ecotoxicity:** The product is considered to be non toxic. LC50 aquatic toxicity values are > 100 mg/l. High concentrations (> 100 mg/l) may have a sterilising effect in sewage works. Product is extensively used in treatment of acid wastes and sewage sludges.

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

**Persistence and Degradability:** Not relevant for inorganic substances.

**Bioaccumulative Potential:** Not relevant for inorganic substances.

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## 13. Disposal Considerations

Disposal should be in accordance with local and national legislation.

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## 14. Transport Information

**UN Number:** Not classified.

**Classification:** Not classified as hazardous for transport.

**IMDG/GGVSea (Sea) Classification:** Not subject to identification.

**ADR (Road) Classification:** Not subject to identification.

**RID (Rail) Classification:** Not subject to identification.

**ICAO/IATA (Air) Classification:** Not subject to identification.

## 15. Regulatory Information

### Labelling according to EEC-directives:

Symbol and classification of the substance according to directive 67/548/EEC: Xi Irritant



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## 16. Other Information

**Risk Phrases:** R37/38 Irritating to respiratory system and skin.  
R41 Risk of serious damage to the eyes.

**Safety Phrases:** S2 Keep out of reach of children.  
S25 Avoid contact with eyes.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39 Wear suitable gloves and eye / face protection.

**Further Information:** The information contained therein is based on the state of our knowledge regarding the product, at the mentioned date. They are provided in good faith. It does not exempt the user from knowing and applying all texts regulating his activity. It will be his sole responsibility to take all necessary precautions when using the products.

**Guidance & References:** This Safety Data Sheet has been prepared generally in accordance with the European REACH regulations (REGULATION (EC) No 1907/2006, Annex II) and Directive 98/24/EC.

**Revision:** The present version is a renewal version, in order to be in accordance with the Annex II of the REACH Regulation (EC) 1907/2006.

**Last Revision Date:** October 2009

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