Health & Safety guidelines for the use of:

Hydrated Lime
Natural Hydraulic Lime
Lime Putty

1. Identification of substance

1.1 Product names

Hydrated Lime, Natural Hydraulic Lime and Lime Putty

1.2 Description

Hydrated lime: An odourless white powder soluble in water. When mixed with cement, sand and water it becomes a binder for building applications (e.g. mortars and renders).

Natural hydraulic lime: An odourless white powder. When mixed with sand and water it becomes a binder for building applications (e.g. mortars and renders).

Lime putty: An aqueous suspension of calcium hydroxide. When mixed with sand it becomes a binder for building applications (e.g. mortars and renders).

2. Supplier/manufacturer

Traditional Lime Company
Church Farm
Leckhampton
GL53 0QJ
01242 525444
e-mail: info@traditionallime.co.uk

3. Composition/information on ingredients

3.1 Chemical description

Calcium hydroxide Ca(OH)2 with some calcium silicates, aluminates, ferro-aluminates and sulfates, small quantities of magnesium and other trace elements.

3.2 Hazardous ingredients

Hazardous ingredient – calcium hydroxide.

4. Hazards identification

4.1 Irritating to eyes and skin.

Can cause burns in the presence of moisture. It is advisable to ensure that eye wash is available when hydrated lime, natural hydraulic lime or lime putty is handled.

5. First aid measures/emergency first aid procedures

5.1 Eye contact

Irrigate with water for at least 20 minutes. SEEK MEDICAL ATTENTION. SPEED IS ESSENTIAL.

5.2 Skin contact

Wash affected area immediately with plenty of water. Remove contaminated clothing.

5.3 Ingestion

Do not induce vomiting. Wash mouth with water and drink copious quantities of water. Seek medical advice if necessary.

5.4 Inhalation

Irrigate nose and throat with water for at least 20 minutes. It is advisable to seek medical attention. Remove patient from prolonged and repeated inhalation of high exposure.

5.5 Further medical treatment

No known delayed effects. Prolonged or repeated contact with skin may result in severe irritation or dermatitis. Prolonged or repeated inhalation of high dust concentrations may cause ulceration and perforation of the nasal septum and Pneumonitis.

6. Fire-fighting measures

6.1 Hydrated lime, natural hydraulic lime and lime putty are not combustible. No special fire-fighting equipment is required. No extinguishing media or explosion hazard is identified.

7. Accidental release measures

7.1 Personal precautions

See 9.3

7.2 Cleaning up

Contain the spillage. Keep the material dry. Act to minimise dust. Avoid contamination of drains or water courses. Spillage into water courses must be alerted to the Environmental Agency. Keep children away from clean up operation.

8. Storage and handling

8.1 General

Keep dust levels to a minimum. Avoid contact with eyes and skin. Use barrier cream if necessary.

8.2 Ventilation requirements

Ventilation equipment should be used in buildings to ensure dust levels are kept below the OEL (see 9.1). All ventilation systems should be filtered before discharge to atmosphere.

8.3 Storage

Minimise contact with air and moisture. Keep separate from flammable materials and chemicals with which it might react. Store in properly designed bunkers or silos. Bagged materials should not be in contact with flammable materials and storage should be in masonry or concrete structures. Bags should be stacked in a safe and stable manner.

8.4 Handling
When handling lime bags, due regard should be paid to the risks outlined in the Manual Handling Operations Regulations. Some bags may have a small amount of lime on the outer surface.
Appropriate personal protective clothing (see 9.3) should therefore be used whilst handling.

9. Exposure controls /personal protection

9.1 Occupational Exposure Limit (OEL)
Recommended limit 4mg/m3 (8 hour Time Weighted Average).

9.2 Engineering measures
Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below OEL.

9.3 Personal protective equipment
Long-sleeved overalls, boots and or fabric/composite gloves should be worn, alongwith wide vision goggles with anti-mist for eye protection. If atmospheric dust exceeds OEL, approved dust respirators or air-streamed helmets should be worn.

10. Physical/chemical properties

10.1 Form
Hydrated lime and natural hydraulic lime– fine dry powder.
Lime putty – an aqueous suspension of calcium hydroxide.

11. Stability and reactivity
Stable.
Avoid exposure to moisture.
Reacts to acids with the evolution of heat.

12. Toxicological information

12.1 Short term effects

a) Eye contact - can be very painful. May cause partial or total loss of sight if untreated.

b) Skin contact - irritating to skin. May cause burns in the presence of moisture.

c) Ingestion - cause corrosion of and damage to gastrointestinal tract.

d) Inhalation - irritant to respiratory tract.

12.2 Long term effects
May cause irritation to skin and dermatitis.
Prolonged and repeated inhalation of high concentrations may damage the respiratory tract.

13. Ecological information

13.1 Mobility
Soluble in water as hydroxide to form alkaline solution. Low mobility in most ground conditions.

13.2 Persistence and degradability
Non biodegradable – reacts with moisture to form calcium hydroxide and reacts with atmospheric carbon dioxide to form calcium carbonate (limestone).

13.3 Bioaccumulative potential

Aquatic toxicity – non toxic LC50 aquatic toxicity values are > 100mg/litre

Colour – white to off-white

Odour – possible earthy odour

pH – 12.4 (as aqueous solution approximately 2g/litre)

Melting – 5800C (decomposition) point
Vapour pressure – 0mmHg at 200C

Bulk density – 480kg/m3 (loose), 590kg/m3 (compacted)

Solubility in water – 1.76g/litre saturated solution at 100°C

Concentrations have a sterilisation effect in treatment works. Product used in treatment of acid wastes and sewage sludges.

14. Disposal considerations

Hydrated lime, natural hydraulic lime, lime putty and empty packaging can normally be disposed of only at licensed waste facilities. Disposal should be in accordance with local and national legislation. Keep out of reach of children.

15. Transport information

Not classified as hazardous for transport by road and rail.

16. Regulatory information

16.1 The Chemicals (Hazard Information & Packaging)
Regulations Statutory Instrument 1746
Classification for supply: Irritant
Classification for conveyance: None

16.2 Risk/safety phrases

Risk phrases

• Risk of serious damage to eyes.

• Contact with wetted Hydrated Lime, wetted Natural Hydraulic Lime or Lime Putty may cause irritation, dermatitis or burns.

• Contact between Hydrated Lime or Natural Hydraulic Lime powder and body fluids (e.g. sweat and eye fluid) may cause skin and respiratory irritation, dermatitis or burns.

Safety phrases

• Avoid eye and skin contact by wearing suitable eye protection, waterproof clothing, waterproof footwear and waterproof gloves.

• Clothing contaminated by wetted Hydrated Lime, wetted Natural Hydraulic Lime or Lime Putty should be removed immediately and washed before re-use.

• Avoid breathing dust.

• Keep out of reach of children.

• On contact with eyes or skin, rinse immediately with plenty of clean water. Seek medical advice after eye contact.

Technical Helpline:
01242 525444

17. Legislation and other information

• Health and Safety at Work etc Act 1974

• Control of Substances Hazardous to Health (Regulations)

• HSE Occupational Exposure Criteria Document Summaries 1993 Edition (ISBN 01 18821202)

• HSE Guidance Note EH26 (Occupational Skin Diseases – Health and Safety Precautions)

• HSE Guidance Note EH40 (Occupational Exposure Limits)

• Any authorised manual on First Aid by St. John's/St. Andrews/Red Cross

• Manual Handling Operations Regulations

• Environmental Protection Act

• Data sheet prepared in accordance with Directive 91/155/ECC

For further information please contact:
info@traditionallime.co.uk

THE TRADITIONAL LIME Co.

MANUFACTURERS OF TRADITIONAL LIME PRODUCTS