



## Material Safety Datasheet

# HYDRATED LIME

It is important that you, or any persons working for you or to whom you have supplied hydrated lime, become familiar with the information given on both pages of this datasheet before handling, using or disposing of the product.

### Hydrated Lime

#### 1. Identification of substance/preparation and company

**Company:** CEMEX UK Operations Ltd  
CEMEX House, Evreux Way  
Rugby, Warwickshire CV21 2DT  
Tel: 01788 542111 (out of hours 01932 568833)  
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**Substance/preparation:** Rugby Hydrated Lime  
CAS No: 1305-62-0

**Revision date:** May 2006

### Hazard information

#### 2. Composition/information on Ingredients

##### Hydrated Lime:

A fine, dry white powder.

2.1 Chemical Description:  
Calcium Hydroxide Ca (OH)<sub>2</sub> >90%. Small quantities of calcium carbonate, magnesia and trace elements.

2.2 Hazardous Ingredients:  
Calcium hydroxide.

#### 3. Hazards identification

Irritating to eyes and skin. Risk of serious damage to eyes.  
May cause burns in presence of moisture.

### Emergency action

#### 4. First aid measures

- 4.1 Eye contact:  
Causes painful irritation and may cause serious damage to eyes unless immediate treatment is given. SPEED is ESSENTIAL. Remove particles with cotton wool bud, irrigate with eyewash or clean water for at least 15 minutes. Obtain medical attention as soon as possible.
- 4.2 Skin contact:  
An irritant; may cause burns in presence of moisture. Remove contaminated clothing. Wash immediately with plenty of water.
- 4.3 Ingestion:  
Unlikely to cause any reactions. Larger doses may irritate gastrointestinal tract. Do not induce vomiting, wash out mouth with water and give copious quantities of water to drink.
- 4.4 Inhalation:  
Irritating to the respiratory tract in high concentration. Remove from exposure and keep warm and rest. Irrigate nose and throat with water for at least 20 minutes.
- 4.5 Further Medical Attention:  
Symptomatic, if necessary. No known delayed effects. Prolonged or repeated contact with skin may result in severe irritation or dermatitis. It is advisable to ensure that eyewash facilities are readily available where "Hydrated Lime" may be handled.

#### 5. Fire fighting measures

Non-combustible and inhibits the spread of flame. No special fire fighting procedure, extinguisher media or explosion hazard is identified.

#### 6. Accidental release measures

- 6.1 Personal precautions (See 8.3.)
- 6.2 Cleaning up:  
Contain spillage and keep dry if possible. Use vacuum suction unit, or shovel into bags. Cover or enclose area if possible to avoid unnecessary dust hazard. Any contamination of drains and watercourses must be alerted to the National Rivers Authority or other appropriate regulatory body.
- 6.3 Environmental measures:  
Prevent from entering drains, sewers or water courses.

### Precautions

#### 7. Storage and handling

- 7.1 Storage:  
Should be stored in a cool dry environment free from draught. Bulk storage should be in a purpose built silo. Product in bags should be stored in a draught-free brick or concrete building and stacked in a safe and stable manner.
- 7.2 Handling:  
Avoid contact with skin and eyes. Avoid inhalation of high concentration of dust. Manual handling of the product should be minimised through the use of mechanical aids, etc. wherever possible. Account should be taken of the Manual Handling Regulations and care should be taken when lifting by hand.

### WARNING

WET HYDRATED LIME MAY CAUSE ALKALIS BURNS if in direct contact with skin. You MUST wear the appropriate protective clothing at all times.

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## 8. Exposure controls/personal protection

- 8.1 Workplace exposure limits:  
The HSE Guidance Note EH40 lists long term (8 hour TWA) Workplace Exposure Limits (WELs) for Calcium Hydroxide of 5 mg/m<sup>3</sup> and for Calcium Carbonate of 10 mg/m<sup>3</sup> inhalable dust and 4 mg/m<sup>3</sup> respirable dust.
- 8.2 Engineering measures:  
Where reasonably practicable dust exposures should be controlled by engineering methods.
- 8.3 Personal Protective Equipment:  
Handling system should preferably be enclosed, or suitable ventilation installed to maintain atmospheric dust below the WELs.
- a. Respiratory protection:  
Suitable respiratory protection (HSE approved standard) should be worn to ensure that personal exposure is less than the WELs. Always ensure good ventilation. Use dust respirators, or air-steam helmet.
- b. Hand and skin protection:  
Protective clothing should be worn which ensures that Hydrated Lime does not come into contact with the skin. Should Hydrated Lime get inside boots, gloves or other protective clothing then this protective clothing should be immediately removed and the skin thoroughly washed as well as the protective clothing /footwear. Rubber, leather or fabric /composite gloves provide suitable hand protection.
- c. Eye protection:  
Wide vision full goggles with anti-mist for eye protection should be worn whenever there is a risk of Hydrated Lime entering the eye.

## Product information

### 9. Physical & chemical properties

Physical Data – Hydrated Lime

Physical state	Particulate
Form	fine dry white powder
Colour	white
Odour	faint "earthy" odour
pH	12.4 (aqueous solution approx. 2g/litre)
Viscosity	N/A
Freezing point	N/A
Boiling point	N/A
Melting point	N/A
Flash point	N/A (not flammable)
Explosive properties	N/A
Vapour Pressure	0 at 20°C
Specific Gravity	2.3
Solubility	1.8g/litre at 10°C (in water)

### 10. Stability & reactivity

Conditions contributing to chemical instability: none  
 Hazardous decomposition products: Decomposes with loss of water at approximately 580°C to form calcium oxide (quicklime).  
 Special precautions: Minimise exposure to air to avoid degradation.  
 Reacts vigorously with strong acids. Attacks aluminium, lead and brass in the presence of moisture.

## 11. Toxicological information

- 11.1 Short term effects:
- Eye contact:  
Painful irritant, with risk of severe and permanent damage to eyes.
  - Skin:  
Irritant in the presence of moisture, may cause burns.
  - Ingestion:  
May cause irritation of the gastrointestinal tract.
  - Inhalation:  
High concentration of dust may be irritant to the respiratory tract.
- 11.2 Chronic effects:  
Prolonged and repeated skin contact may cause dermatitis.

## 12. Ecological information

- 12.1 Aquatic toxicity rating:  
Harmful to aquatic organisms in high concentration (generally greater than 100mg/l).
- 12.2 Mobility:  
Sparingly soluble in water to form alkaline solution.  
Low mobility in most ground conditions.
- 12.3 Persistence and degradation:  
Non bio-degradable – reacts with atmospheric and dissolved carbon dioxide to form calcium carbonate (chalk).
- 12.4 Effects of effluent treatment:  
High concentrations (>100mg/l) may have a sterilising effect in sewage works. Product is suitable for use in treatment of acid wastes and sewage sludges.

## 13. Disposal considerations

Disposal should be in accordance with current local and national legislation. Hydrated lime can normally be disposed only to licensed waste facilities.

## Additional information

### 14. Transport information

Not hazardous as hazardous for transport.

### 15. Regulatory information

- 15.1 Chemicals (Hazard Information and Packaging for Supply) Regulations.  
Classification: Irritant.

#### 15.2 Risk/Safety phrases

Risk phrases

- Causes burns.
- Risk of serious damage to eyes.
- Irritating to the skin.

Safety phrases

- Avoid eye and skin contact by wearing suitable eye protection, clothing and gloves.
- 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.

## 16. Legislation and other information

- Health & Safety at Work, etc. Act 1974
- Control of Substances Hazardous to Health Regulations (COSHH) 2002
- Control of Substances Hazardous to Health (Amendment) Regulations 2004
- Environmental Protection Act 1990
- HSE Guidance Note EH40 (Workplace Exposure Limits)
- Any authorised manual on First Aid by St.John's/St.Andrews/Red Cross
- Manual Handling Operations Regulations 1992 (as amended)

Data Sheet prepared in accordance with the Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/122/EC and 2001/58/EC)

## Guidance references

Available from HMSO, HSE area offices, or local authority Environmental Health Departments:

- EH40/ Workplace Exposure Limits
- A step-by-step guide to COSHH Assessment (HS[G]97)

### IMPORTANT NOTES

The purpose of this datasheet is to provide Health, Safety and Environmental guidance on the safe handling, use and disposal of Hydrated Lime supplied by subsidiary or affiliate companies of CEMEX in the United Kingdom.

The information contained in this datasheet is correct at the date of, and applies only in relation to, the supply of material referred to in the delivery docket to which this datasheet is attached and forms part.

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