

MATERIAL SAFETY DATA SHEET

Hydrated Lime and Patio Base Mix

Rugby™

The Professionals' Choice

1. Identification of substance / preparation and company

Company:
RMC Packed Products Limited
RMC House
Evreux Way
Rugby
Warwickshire CV21 2DT.
Telephone: 0808 145 1900
Fax: 01788 514742

Products:
Rugby Hydrated Lime.
CAS No: 1305-62-0

Rugby Patio Base Mix

Issue Date: July 2003.

Hazard Information

2. **Composition/Information on Ingredients**
Hydrated Lime – A fine, dry white powder.
Patio Base Mix – A mixture of aggregates (sand) and hydrated lime. The aggregates will contain a combination of various minerals, including silica.

2.1 **Chemical Description**
Calcium Hydroxide $Ca(OH)_2 > 90\%$. Small quantities of calcium carbonate, magnesia and trace element.

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. Airborne dust from the natural aggregates may contain respirable silica. Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can lead to silicosis and ultimately an increased risk of developing lung cancer.

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 Treatment

Symptomatic, if necessary. No known delayed effects. Prolonged or repeated contact with skin may result in more 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. Avoid 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.

8. Exposure Controls/Personal Protection

Wear suitable respiratory protection equipment if exposure to atmospheric dust levels above the occupational exposure limit is likely.

8.1 Occupational Exposure Limits

The following Occupational Exposure Limits are given in HSE Guidance Note EH40:

Substance	OES	MEL	Period
Calcium Hydroxide	5	-	8 hour
Calcium Carbonate	mg/m ³	-	TWA
Total inhalable dust	10	-	8 hour
	mg/m ³	-	TWA
Respirable dust	4	-	8 hour
	mg/m ³	-	TWA
Respirable Silica	-	0.3	8 hour
		mg/m ³	TWA

It should however be noted that the Health and Safety Executive have stated in their Chemical Hazard Alert Notice on Respirable Crystalline Silica (CHAN 35 published April 2003) that it should now be reasonably practicable for all industry sectors to control respirable crystalline silica exposure to 0.1mg/m³ (8 hour TWA) or below.

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 OEL.

a. Respiratory Protection

Suitable respiratory protection should be worn to ensure that personal exposure is less than the OES. Always ensure good ventilation. Use approved dust respirators, or air-steam helmet.

b. Hand and Skin Protection

Protective clothing should be worn which ensures that Hydrated Lime or Patio Base Mix does not come into contact with the skin. Should Hydrated Lime or Patio Base Mix 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 or Patio Base Mix entering the eye.

WARNING

Wet Hydrated Lime may cause alkali burns if in direct contact with skin. You MUST wear the appropriate protective clothing at all times when working with cement, concrete or mortar.



Packed Products

9. Physical/Chemical Properties

9.1 Physical Data – Hydrated Limes

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
 Explosive properties N/A
 Vapour Pressure 0 at 20°C
 Specific Gravity 2.3
 Solubility 1.8g/litre at 10°C (in water)

Physical Data – Patio Base Mix

Form fine dry white powder
 blended with sand

Colour Orange/brown
 pH 9-12 (when wet)

10. Stability and 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

- a. *Eye Contact*
 Painful irritant, with risk of severe and permanent damage to eyes.
- b. *Skin*
 Irritant in the presents of moisture, may cause burns.
- c. *Ingestion*
 May cause irritation of the gastrointestinal tract.
- d. *Inhalation*
 High concentration of dust may be irritant to the respiratory tract.

Long Term Exposure
 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 on 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 classified as hazardous for transport.

15. Regulatory Information

15.1 Chemicals (Hazardous Information & Packaging for Supply) Regulations 2002 Classification - Irritant (+hazard symbol).

Occupational Exposure Limits
 HSE Guidance note EH40

Danger Classification	Phrase
R34	Causes burns
R38	Irritating to the skin
R41	Risk of serious damage to the eyes
S24	Avoid contact with skin
S25	Avoid contact with eyes
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

15.2 Risk/Safety Phrases

Risk Phrases
 • Causes burns
 • Irritating to the skin
 • Risk of serious damage to eyes

Safety Phrases
 • Wear suitable protective clothing and eye/face protection
 • Do not breath 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
 - 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 1990
- Data Sheet prepared in accordance with directive 91/155/EEC

Guidance references

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

- EH40/2002: Occupational Exposure Limits
- A step by step Guide to COSHH assessments (HS[G]97)

Important Notes:

Data and advice in this Material Safety Data Sheet is provided to alert all purchasers and users to the possible hazards of use when the material is used as intended. The information should enable them to take the necessary precautions to protect the health and safety of personnel.

This Data Sheet does NOT constitute the user's own assessment of workplace risk as required by other safety legislation. If purchasing on behalf of a third party who will work with the material, it is your statutory duty to pass on this information to them BEFORE such work begins.

RMC Packed Products Ltd

RMC House
 Evreux Way
 Rugby
 Warwickshire
 CV21 2DT

Tel: 0808 145 1900
 Fax: 01788 514742

Email: enquiries@rmcpackedproducts.com

www.rmc.co.uk

The information and advice contained on this sheet is given by RMC PACKED PRODUCTS LIMITED in good faith and, to the best of the Company's knowledge, was accurate at time of publication. However, no liability or responsibility of any kind can be accepted by the Company, its staff or representatives for problems arising directly or indirectly from the content of this sheet, from the actions or omissions of their parties or from poor practice.