

Cornerstone Hot Lime Mortar MSDS

Womersleys Ltd Naturally Hydraulic Ironstone Hot Lime Mortar

1. Identification of the Substance and Company

Substance or preparation trade name: Ready Mixed Hot Lime Mortar,
Other Names: Hot Lime, Quicklime Mortar

Company name & address:
Cornerstone.
Brims Park,
Old Callywith Road,
Bodmin,
PL31 2DZ

Telephone: 01208 79779
Emergency telephone number: 999

Important information

The information contained in the following bullet points is a summary of the most important points in this MSDS document, they have been included at the start to highlight the hazard this material will pose.

1. if you have an accident with quicklime (inhalation, ingestion, in the eye etc.) seek professional medical attention immediately
2. Accidents handling quicklime will cause blindness. Personal eyewash pods in your pocket and eye protection like tight fitting goggles are mandatory at all times.
3. Respiratory protection is mandatory when handling anything containing quicklime; it can be removed after the slaking process has completed.
4. The slaking process will get very hot and can exceed 100°C very quickly. Control the reaction through the water addition rate and do not let the mortar get too dry when mixing it.
5. Inadequate storage can start fires. Keep the mortar dry till you come to mix it. Storage should be in dry conditions away from wind.

2. Composition

Substance: Hot Lime Ready Mixed Mortar
% content: 10-30% Quicklime, 60-90% Sand, optional – clays, crushed limestone, workability aids, pozzolans, pozzolana

CAS Number: 1305-78-8 (Quicklime)
Classification: Irritant/Corrosive
EINECS: 215-138-9

CAS Number: 14808-60-7 (Quartz)
Classification: Specific target organ toxicity – repeated exposure (Category 1)
EINECS: 238-878-4

3. Hazards Identification

Irritating to skin and eyes, can cause chemical burns if washed off. Risk of serious damage to eyes including blindness; keep saline eyewash available when working with Limes. In case of eye irritation seek immediate medical attention.

4. First aid measures

Skin contact: Carefully and gently brush the contaminated body surfaces in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary seek medical advice

Inhalation: Move patient to a clean environment with plenty of fresh air. Obtain medical attention immediately.

Eye contact: Rinse eyes immediately with plenty of water/saline solution and seek immediate medical advice.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention immediately.

5. Fire fighting measures

Suitable extinguishing media: The product is not combustible. Use a dry powder, foam or CO₂ fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Do not use water.

Special hazards in fire: Avoid generation of dust. Use breathing apparatus. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Required special protective equipment for fire-fighters: Use breathing apparatus

6. Accidental release measures

Personal precautions:

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Environmental precautions: Contain the spillage. Cover area if possible to avoid unnecessary hazard. Avoid uncontrolled spills to watercourses and drains (pH increase). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.

Methods for cleaning: Shovel material into a suitable container; wash away the minimum amount possible.

In all scenarios avoid aeration of dust

7. Handling and storage

Handling: Avoid contact with skin and eyes. Wear protective equipment (refer to section 8 of this safety data sheet). Do not wear contact lenses when handling this product. It is also advisable to have individual pocket eyewash. When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.

Avoid ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

Storage: The substance should be stored under cool, dry conditions. Any contact with air should be avoided – airtight storage is advised if possible. Keep away from acids, significant quantities of paper, straw, and nitro compounds. Keep out of reach of children. Do not use aluminum for transport or storage.

8. Exposure Controls

Control Parameters (RE. dust – not applicable in a wet state):

SCOEL recommendation (SCOEL/SUM/137 February 2008; see Section 16.6):

Quicklime (before slaking)

Occupational Exposure Limit (OEL), 8 h TWA: 1 mg/m³ respirable dust of calcium dihydroxide

Short-term exposure limit (STEL), 15 min: 4 mg/m³ respirable dust of calcium dihydroxide

PNEC aqua = 490 µg/l

PNEC soil/groundwater = 1080 mg/l

Hydrated lime (after slaking)

Occupational Exposure Limit (OEL), 8 h TWA: 1 mg/m³ respirable dust of calcium dihydroxide

Short-term exposure limit (STEL), 15 min: 4 mg/m³ respirable dust of calcium dihydroxide

PNEC aqua = 490 µg/l

PNEC soil/groundwater = 1080 mg/l

Silica Sands

HSE EH40/2005 Workplace exposure limits (WEL) (2nd edition 2011):

Reference time period - 8-hour (Time Weighted Average)

Respirable limit values: Respirable Crystalline Silica 0.1 mg m⁻³

Personal protection equipment:

Eye protection: Do not wear contact lenses. Wear tight fitting goggles with side shields, or wide vision full goggles. It is also highly advisable to have individual pocket eyewash.

Skin protection: Since calcium dihydroxide and calcium oxide is classified as irritating to skin, dermal exposure has to be minimized as far as technically feasible. The use of protective gloves (nitrile), protective standard working clothes fully covering skin, full length trousers, long sleeved overalls, with close fittings at openings and shoes resistant to caustics and avoiding dust penetration are required to be worn.

Environmental measures: Avoid releasing to the environment. Contain the spillage. Any large spillage into watercourses must be alerted to the regulatory authority responsible for environmental protection or other regulatory body.

For detailed explanations of the risk management measures that adequately control exposure of the environment to the substance please check the relevant exposure scenario, available via your supplier.

9. Physical and chemical properties

Appearance: Sandy mortar with white lumps,

Odour: none

pH: 12-13

Melting point: > 450 °C (study result, EU A.1 method)

Boiling point: not applicable (solid with a melting point > 450 °C)

Flashpoint: not applicable (solid with a melting point > 450 °C)

Explosive properties: non explosive (void of any chemical structures commonly associated with explosive properties)

Vapour pressure: not applicable (solid with a melting point > 450 °C)

Relative density: Approx. 2 Kg/L

Solubility: 1337.6 mg/L (study results, EU A.6 method)

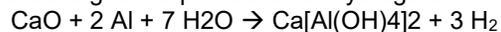
Oxidising properties: N/A

10. Stability and reactivity

Conditions to avoid: Minimise exposure to air

Chemical Stability: Calcium oxide reacts exothermically and often violently with water.

Materials to avoid: Calcium dihydroxide reacts exothermically with acids to form salts. Calcium dihydroxide reacts with aluminium and brass in the presence of moisture leading to the production of hydrogen.



Hazardous decomposition products: None.

Further information: Calcium oxide and calcium dihydroxide react with carbon dioxide to form calcium carbonate, which is a common material in nature.

11. Toxicological information

Acute toxicity: Calcium dihydroxide is not acutely toxic.

Oral LD₅₀ > 2000 mg/kg bw (OECD 425, rat)

Dermal LD₅₀ > 2500 mg/kg bw (OECD 402, rabbit)

Inhalation no data available

Classification for acute toxicity is not warranted.

(For irritating effects to the respiratory tract see below)

Please note: LD₅₀ limits are based on calcium dihydroxide as calcium oxide will convert to calcium dihydroxide on contact with water.

Excessive exposure may affect human health as follows:

Skin contact: Calcium dihydroxide is irritating to skin

Eye contact: Calcium dihydroxide entails a risk of serious damage to the eye

Inhalation: From current data it is concluded that Ca(OH)₂ is irritating to the respiratory tract – this is not applicable when it is in a wet state. Calcium oxide has no data available for inhalation

Neither calcium dihydroxide nor calcium oxide is considered not to be a skin sensitiser, based on the nature of the effect (pH shift) and the essential requirement of calcium for human nutrition.

12. Ecological information

Acute pH-effect. Although this product is useful to correct water acidity, an excess of more than 1 g/l may be harmful to aquatic life. pH-value of > 12 will rapidly decrease as result of dilution and carbonation. Please contact us for more details.

13 Disposal Considerations

Disposal of calcium oxide should be in accordance with local and national legislation.

Processing, use or contamination of this product may change the waste management options.

Dispose of container and unused contents in accordance with applicable member state and local requirements.

The used packing is only meant for packing this product; it should not be reused for other purposes. After usage, empty the packing completely

14. Transport information

Calcium oxide is not classified as hazardous for transport as per ADR (Road), RID Rail, AND (inland waterways) and IMDG (Sea). Calcium oxide is however classified as hazardous for air transport (ICAO/IATA).

If shipping this product by air please contact us for more details.

15. Regulatory information

Authorisations: Not required

Restrictions on use: None

Other EU regulations: Calcium oxide is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.

National regulations: Water endangering class 1 (Germany)

16. Other Information

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

Hazard Statements

H315: Causes skin irritation

H318: Causes serious eye damage

H335: May cause respiratory irritation

Precautionary Statements

P102: Keep out of reach of children

P280: Wear protective gloves/protective clothing/eye protection/face protection

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, then continue rinsing.

P310: Immediately call a POISON CENTRE or doctor/physician

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

Risk Phrases

R37: Irritating to respiratory system

R38: Irritating to skin

R41: Risk of serious damage to eyes

Safety Phrases

S2: Keep out of the 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: Wear suitable gloves

S39: Wear eye/face protection