EWI-747F LIME RENDER (FINE) NHL 3.5 SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY OR UNDERTAKING

1.1 Product Identifier:

EWI-747F Lime Render (Fine) NHL3.5

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Mortar for rendering and plastering, designed for use in the restoration of historical heritage, bioconstruction, and new construction. Intended for use on exterior and interior elements.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:

EWI Pro Insulation Systems Ltd
Unit 1-2, King Georges Trading Estate, Davis Road, Chessington, England, KT9 1TT
0800 133 7072
info@ewipro.com
technical@ewipro.com

Producer:

COMCAL NATURAL, S.L.
Av. CAN BORDOLL, 55, Unit 2, Industrial Park Can Roqueta, SABADELL, BARCELONA
+34 93 729 42 54
comercial@com-cal.com

1.4 Emergency phone number:

Environment Agency Emergency Hotline: +44/(0)800 80 70 60

Emergency Services (UK): 999

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

According to Regulation (EC) No 1272/2008 on classification, labelling, and packaging:

Hazard Class	Hazard Category	Hazard Statement
Skin Irritation	Category 2	H315: Causes skin irritation
Serious Eye Damage / Eye Irritation	Category 1	H318: Causes serious eye damage
Specific Target Organ Toxicity (Single Exposure)	Category 3	H335: May cause respiratory irritation

2.2 Hazard Characterisation

H318: Causes serious eye damage

H315: Causes skin irritation

H335: May cause respiratory irritation

Label Elements

GHS05 'Corrosion'

GHS07: Exclamation mark (for skin irritation)

Precautionary Statements:

P102: Keep out of reach of children.

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

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

P302+P352+P333+P313: IF ON SKIN: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

P261+P304+P340+P312: Avoid breathing dust/fume/gas/mist/vapours/spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

P501: Dispose of contents/container at an appropriate waste collection point.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Composition:

➥ Selected marble and siliceous aggregates: > 75% (by weight)
➥ Natural Hydraulic Lime NHL-3.5: > 15% (by weight)
➥ Extra-fine Natural Pozzolan: < 5% (by weight)
➥ Other organic and inorganic additives: < 2% (by weight)

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3.2 Hazardous Substances:

Natural Hydraulic Lime (NHL) 3.5 is a lime with hydraulic properties produced by calcining limestone that contains varying amounts of clay or silica, followed by slaking with or without grinding.

It sets and hardens when mixed with water and reacts with carbon dioxide in the air (carbonation).

CAS No.	EINECS No.	Name	Content (% by weight)	Classification (Regulation (EU) No 1272/2008)
1305-62-0	215-137-3	Calcium Hydroxide	> 25%	H318, H315, H335
10034-77-2	233-107-8	Dicalcium Silicate	> 20%	Not classified
471-34-1	207-439-9	Calcium Carbonate	> 10%	H318, H315, H335

3.3 Mixtures:

The mixture does not contain cement and does not include soluble Cr (VI).

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

➥ **Inhalation:** Move the person to an area with fresh air. Drink water to clear the throat and blow the nose to remove dust. Seek medical attention if symptoms persist. (Inhalation of large amounts of natural hydraulic lime requires immediate medical attention.)

➥ **Skin Contact:** If the lime is dry: remove as much as possible, then wash thoroughly with water. If the lime is wet: wash thoroughly with water. Remove and thoroughly clean contaminated clothing, footwear, watches, etc., before reuse. Seek medical attention if irritation or caustic burns occur.

➥ **Eye Contact:** Do not rub the eyes to avoid corneal damage. Rinse immediately with plenty of water (preferably with 0.9% NaCl saline solution) to remove all particles and consult an ophthalmologist.

➥ **Accidental Ingestion:** Do not induce vomiting. If the person is conscious, rinse the mouth to remove material or dust, give plenty of water to drink, and seek medical attention immediately.

4.2 Main symptoms and effects, acute and delayed:

➥ **Eye Contact:** Direct contact with natural hydraulic lime dust (wet or dry) can cause serious, potentially irreversible eye injuries.

➥ **Skin Contact:** Contact between lime dust and moist skin may cause irritation, dermatitis, or burns.

➥ **Inhalation:** Repeated inhalation of lime dust over a long period increases the risk of developing lung diseases.

➥ **Environment:** Under normal use, natural hydraulic lime does not pose any particular environmental risk.

4.3 Indications for medical attention and special treatments to be administered immediately:

➥ When contacting a doctor, bring this safety data sheet with you.

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SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Natural hydraulic lime is not flammable.

5.2 Specific hazards arising from the mixture:

Natural hydraulic lime is not flammable, not explosive, and does not support or feed the combustion of other materials.

5.3 Advice for firefighters:

Natural hydraulic lime poses no fire-related hazards. No special protective equipment is required for firefighting personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

6.1.1. For non-emergency personnel:

Wear the protective equipment described in Section 8 and follow the safe handling advice provided in Section 7.

6.1.2. For emergency personnel:

Emergency procedures are not required. However, in situations with high dust concentrations, respiratory protective equipment is necessary.

6.2 Precautions for the environment:

Do not discharge natural hydraulic lime into sewage systems or surface waters (e.g., streams).

6.3 Methods and material for containment and cleaning:

Collect the spilled material. Use dry cleaning methods that do not raise dust, such as vacuum or extraction systems (e.g., portable industrial vacuum cleaners equipped with high-efficiency particle filters—EPA and HEPA filters, UNE-EN 1822-1:2010—or equivalent techniques). Never use compressed air. Ensure all workers wear appropriate protective equipment and prevent dust dispersion. Avoid inhalation of natural hydraulic lime dust and contact with eyes and skin. Place collected material in a suitable container.

6.4 Reference to other sections:

For more information, refer to Sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

7.1.1. Protection measures:

➥ Follow the recommendations provided in Section 8.

➥ For dry cleaning of natural hydraulic lime, refer to Section 6.3.

➥ Bulk natural hydraulic lime should be stored in impermeable, dry, clean, and protected silos.

➥ To prevent the risk of entrapment or suffocation, do not enter confined spaces such as silos, containers, tanks, or other vessels used to store or contain natural hydraulic lime without taking appropriate safety measures.

➥ Natural hydraulic lime can accumulate or adhere to the walls of confined spaces and may detach, collapse, or fall unexpectedly.

➥ Bags should be stored off the ground, in a cool, dry place, and protected from excessive air currents that could affect the quality of the lime.

➥ Do not store for more than 12 months to optimally preserve its properties.

➥ When handling bags, follow Council Directive 90/269/EEC on the minimum health and safety requirements for the manual handling of loads that pose risks, particularly to the lower back of workers.

7.1.2. Measures to Prevent Fires:

Not applicable.

7.1.3. Measures to Prevent Airborne Particles and Dust:

Do not sweep. Use dry cleaning methods that do not raise dust, such as vacuum or extraction systems.

7.1.4. Measures to Protect the Environment:

No special measures are required.

7.1.5. General Occupational Hygiene Measures:

Avoid dust clouds during handling. If this cannot be avoided, wear safety goggles and a dust mask.

Avoid direct contact of natural hydraulic lime with skin and mucous membranes.

Handle bags carefully and use mechanical aids whenever possible.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

SCOEL [1] Recommendations:

➥ Natural Hydraulic Lime (NHL):

- ➥ Acute effects: DNEL: 4 mg/m³ (respirable dust)
- ➥ Long-term effects: DNEL: 1 mg/m³ (respirable dust)

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Occupational Exposure Limit Values (VLA):

➥ Calcium Hydroxide: OEL-TWA: 5 mg/m³

➥ Calcium Carbonate / Marble: OEL-TWA: 10 mg/m³

➥ *Legal Reference: "Occupational Exposure List for Chemical Agents in Spain" by INSHT*

8.2 Exposure controls:

8.2.1. Appropriate technical controls:

➥ Measures to reduce the formation and spread of airborne particles and dust, such as dust suppression, vacuum systems, and dry cleaning methods that do not raise dust.

8.2.2. Individual protective measures, such as personal protective equipment:

➥ **Respiratory Protection:** Use certified and appropriate dust masks when exposed to potential dust clouds.

➥ **Skin Protection:** Wear impermeable gloves (EN ISO 374-1), suitable for the type of work, boots, long-sleeved protective clothing, and additional skin protection products for prolonged contact with dry or wet natural hydraulic lime paste. Take special care to prevent wet lime paste from entering boots, clothing, watches, etc. Avoid kneeling in contact with natural hydraulic lime. If kneeling is absolutely necessary, waterproof knee pads are mandatory.

➥ **Eye Protection:** When handling natural hydraulic lime or fresh lime paste, wear certified protective goggles according to harmonised UNE-EN 166 standard to prevent dust or splashes from reaching the eyes.

8.2.3. Environmental exposure controls:

➥ **Air:** Control measures to prevent the dispersion of natural hydraulic lime particles into the environment should comply with available technology and dust emission regulations.

➥ **Water:** Do not discharge natural hydraulic lime into sewage systems or surface waters to avoid raising the pH. A pH above 9 can cause negative ecotoxicological impacts.

➥ **Soil and Terrestrial Environment:** No special emission control measures are required for exposure to the terrestrial environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

➥ Physical Appearance: Natural Hydraulic Lime is an inorganic solid material (fine powder, light ochre-beige in colour). Granulometry according to EN 459-1

➥ Odour: Odourless

➥ Odour Threshold: No threshold, odourless

➥ pH: Basic, between 11 and 13.5 (saturated solution at 20°C)

➥ Melting Point: > 450°C

➥ Boiling Point: > 450°C

➥ Flash Point: Not applicable (not a liquid)

➥ Evaporation Rate: Not applicable (not a liquid)

➥ Flammability: Not applicable – it is a non-flammable solid and does not ignite or contribute to fire by friction

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➥ Explosive Limits: Not applicable

➥ Vapor Pressure: Not applicable (boiling point > 450°C)

➥ Vapor Density: Not applicable (boiling point > 450°C)

➥ Relative Density: 2.4 – 2.9 g/cm³

➥ Water Solubility: Moderately soluble

➥ Partition Coefficient (n-octanol/water): Not applicable (inorganic substance)

➥ Auto-Ignition Temperature: Not applicable (not pyrophoric)

➥ Decomposition Temperature: Not applicable

➥ Viscosity: Not applicable (not a liquid)

➥ Oxidizing Properties: Not applicable – does not cause or support combustion of other substances

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

When mixed with water, natural hydraulic lime sets to form a stable, stone-like mass that is resistant to normal environmental conditions. In aqueous environments, $Ca(OH)_2$ dissociates, resulting in the formation of calcium cations and hydroxide ions.

10.2 Chemical stability:

Natural hydraulic lime is stable, provided it is stored correctly. Contact with incompatible materials should be avoided.

10.3 Possibility of hazardous reactions:

Natural hydraulic lime reacts exothermically with acids. When heated above 580°C, calcium hydroxide ($Ca(OH)_2$) decomposes to form calcium oxide (CaO). Calcium oxide reacts with water and generates heat, which may pose a flammability risk.

10.4 Conditions to avoid:

Moisture can lead to a loss of product quality and may cause it to set.

10.5 Incompatible materials:

Natural hydraulic lime reacts exothermically with acids, forming salts. It also reacts with aluminium and brass in the presence of moisture, leading to the production of hydrogen gas.

10.6 Hazardous decomposition products:

Natural hydraulic lime does not decompose into hazardous products. It is not capable of sustaining an exothermic chemical reaction on its own. It neither causes nor facilitates the combustion of other substances.

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SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation: Natural hydraulic lime may cause irritation of the respiratory tract and inflammation of the nasal mucosa. In extreme cases, erosions of the mucosa have been observed. Chronic exposure to respirable dust concentrations above occupational exposure limits may lead to coughing, shortness of breath, and chronic obstructive pulmonary diseases.

Ingestion: In cases of significant ingestion, natural hydraulic lime is caustic to the digestive tract and may cause burns in the mouth, oesophagus, and stomach.

Eye contact: Natural hydraulic lime may cause irritation of the eyelids (blepharitis) and cornea (conjunctivitis), and may result in eye injuries.

Skin contact: Natural hydraulic lime can irritate moist skin due to its high pH. Contact with unprotected skin may cause dermal injuries such as cracking or caustic burns, often without prior symptoms.

Chronic skin conditions: Prolonged exposure without proper protection (e.g., gloves) may lead to irritant dermatitis. Other lesions may appear with extended contact, typically on the fingers, including dermatitis with fissures, ulcerations, and hyperkeratosis.

Carcinogenicity: No causal relationship has been established between exposure to natural hydraulic lime and the development of cancer.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

The product is not considered hazardous to water (aquatic toxicity LC50 not determined).

However, in the event of an accidental spill of large quantities of natural hydraulic lime into water, a slight increase in pH may occur, which under certain circumstances could pose some toxicity risk to aquatic life.

12.2 Persistence and degradability:

Not relevant, as natural hydraulic lime is an inorganic material.

Once set, it becomes a stable material that binds its compounds and renders them insoluble, thus posing no toxicity risk.

12.3 Bioaccumulative potential:

Not relevant, as natural hydraulic lime is an inorganic material.

Once set, it becomes a stable material that binds its compounds and renders them insoluble, thus posing no toxicity risk.

12.4 Soil mobility:

Not relevant, as natural hydraulic lime is an inorganic material.

Once set, it becomes a stable material that binds its compounds and renders them insoluble, thus posing no toxicity risk.

12.5 PBT and vPvB assessment results:

Not relevant, as natural hydraulic lime is an inorganic material.

Once set, it becomes a stable material that binds its compounds and renders them insoluble, thus posing no toxicity risk.

12.6 Other adverse effects:

Not relevant.

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SECTION 13: DISPOSAL CONSIDERATION

After setting, natural hydraulic lime can be disposed of like other construction waste and may be stored in suitable containers in accordance with applicable regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN Number:

Not relevant

14.2. Proper Shipping Name:

Not relevant

14.3. Transport Hazard Class(es):

Not relevant

14.4. Packing Group:

Not relevant

14.5. Environmental Hazards:

Not relevant

14.6. Special Precautions for User:

Not relevant

14.7. Transport in Bulk According to MARPOL Annex II and the IBC Code:

Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Regulations and legislation on health, safety, and environment specific to the mixture:

Natural hydraulic lime is exempt from registration.

15.2 Chemical Safety Assessment:

No chemical safety assessment has been carried out.

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SECTION 16: OTHER INFORMATION

16.1. Abbreviations and Acronyms:

➥ CAS: Chemical Abstracts Service, a division of the American Chemical Society

➥ EINECS: European Inventory of Existing Commercial Chemical Substances

➥ EPA: Efficient Particle Air Filter

➥ INSHT: National Institute for Occupational Safety and Health (Spain)

➥ HEPA: High-Efficiency Particulate Air Filter

➥ LC50: Lethal concentration of a compound in air or water that kills 50% of the test organisms under specific conditions

➥ REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation (EC) No 1907/2006)

➥ vPvB: Very Persistent and Very Bioaccumulative

➥ VLA-ED: Environmental Limit Value for Daily Occupational Exposure

16.2. References:

1) Portland Cement Dust – Hazard Assessment Document EH75/7, UK Health and Safety Executive, 2006.
2) Observations on the Effects of Skin Irritation Caused by Cement, Kietzman et al., Dermatosen, 47, 5, 184–189 (1999).

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