

ANDURA COATINGS LTD

1. PRODUCT IDENTIFICATION AND COMPANY DETAILS.

Product name:	GRC Render
Intended use:	Masonry Coating
Company address:	Andura Coatings Ltd. 20, Murdock Road, Bicester, Oxfordshire, OX26 4PP
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2. IDENTIFICATION OF SUBSTANCE

This datasheet applies to the following premixed products:

- High impact render systems
- High performance casting and moulding system.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Fibre reinforced blended products are a mixture of natural aggregates, cement, hydrated lime, alkali resistant glass fibres and rheology controlling admixtures.

3.1 Chemical Description

The principal constituents of the cement are calcium silicates, aluminates, ferroaluminates and sulphates. Small amounts of alkalis, lime and chlorides are also present together with trace amounts of chromium compounds.

The principal constituent of the hydrated lime is calcium hydroxide. Small quantities of calcium carbonate, magnesia and trace elements.

Aggregates consist of naturally occurring sand and consist of combinations of various minerals including silica.

3.2 Hazardous Ingredients

- a) The lime, calcium silicates and alkalis within the cement are partially soluble and when mixed with water will give rise to a potentially hazardous alkaline solution.
- b) Hexavalent chromium salts in the cement are soluble and when mixed with water will give rise to a potentially hazardous solution.

ANDURA COATINGS LTD**4. HAZARDS IDENTIFICATION****4.1 Wet Render**

When dry render is mixed with water or when the render becomes damp, a strong alkaline solution is produced. If this comes into contact with the eyes or skin it may cause serious burns and ulceration. The eyes are particularly vulnerable and damage will increase with contact time.

Strong alkaline solutions in contact with the skin tend to damage the nerve endings first before damaging the skin, therefore chemical burns can develop without pain being felt at the time.

Render mixes may until set cause both irritant and allergic contact dermatitis.

- Irritant contact dermatitis is due to a combination of the wetness, alkalinity and abrasiveness of the constituent materials.
- Allergic contact dermatitis is caused mainly by the sensitivity of some individuals skin to hexavalent chromium salts.

4.2 Render Dust

Inhalation of silica particles in dust created by cutting or surface treatment of hardened render can create dust and flying fragments. The dust created may contain particles of a respirable size that may contain silica. Extended periods of exposure to high concentrations of such dust can cause respiratory and/or eye damage and be hazardous to health.

5. First Aid Measures**Eye Contact**

Wash eyes immediately with clean water for at least 15 minutes and seek medical advice without delay.

Skin Contact

Wash the affected area thoroughly with soap and water before continuing. If irritation, pain or other skin trouble occurs, seek medical advice. Clothing contaminated by wet render should be removed and washed thoroughly before use.

Ingestion

Do not induce vomiting. Wash out mouth with water and give patient plenty of water to drink.

Inhalation

If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

6. Fire Fighting Measures

None needed: Render is not flammable and will not facilitate combustion with other materials.

ANDURA COATINGS LTD**7. Accidental Release Measures****7.1 Personal Precautions****Respiratory protection**

Suitable respiratory protection should be worn to ensure that personal exposure is less than the OES.

Hand and Skin Protection

Protective clothing should be worn which ensures that wet or dry render does not come into contact with the skin. In some circumstances waterproof trousers and wellingtons may be necessary.

Particular care should be taken to ensure that wet render does not enter the boots and persons do not kneel on the wet render so as to bring the wet render into contact with unprotected skin.

Should wet render 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.

Eye Protection

Dust-proof goggles should be worn wherever there is a risk of dry render particles or any wet render mixture entering the eye.

7.2 Method of Cleaning

Recover the spillage in a dry state if possible. Minimise generation of airborne dust. The product can be slurried by the addition of water but will subsequently set as a hard material. Keep children away from clean up operation.

8. Storage and Handling**8.1. Storage**

Bags should be stacked in a safe and stable manner.

8.2. Handling

When handling bags, due regard should be paid to the risks outlined in the Manual Handling Operations Regulations. Some bags may have a small amount of render on the outer surface. Appropriate personal protective clothing (See 7.1) should therefore be used whilst handling.

8.3. Control of Hexavalent Chromium

From 17 January 2005, those products which naturally contain more than 2 ppm of soluble hexavalent chromium (chromium(VI)) by dry weight of cement, will be treated with a chemical reducing agent (such as ferrous sulphate) that maintains the level of hexavalent chromium in the render to below 2 ppm by dry weight of cement. The effectiveness of the reducing agent reduces with time, therefore product bags and/or delivery documents will contain information on the period of time ('shelf life') for which the manufacturer has established that the reducing

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agent will continue to limit the level of hexavalent chromium to less than 2 ppm by dry weight of cement. They will also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent. If products are incorrectly stored, or used after the end of the declared 'shelf life', the level of hexavalent chromium may rise above 2 ppm by dry weight of cement, with a consequent increase in the potential risk of allergic contact dermatitis.

9. Exposure Controls**9.1 Occupational Exposure Standard (OES)**

OES 8hr Time Weighted Average (TWA)

Total inhalable dust 10mg/m³

Respirable dust 5mg/m³

9.2. Engineering Control Measures

Where reasonably practicable, dust exposures should be controlled by appropriate engineering methods.

10. Physical/Chemical Properties**10.1. Physical Data**

Physical state	Powder blend
Mean particle size	5 micron to 2mm
Odour	N/A
pH of wet render	12 – 14
Viscosity	N/A
Freezing point	N/A
Boiling point	N/A
Melting point	N/A
Flash point	not flammable
Explosive properties	Not explosive
Bulk density	1200 - 1800 kg/m ³
Solubility	Partially soluble in water

10.2. Chemical Compounds

Mainly a mixture of: 3CaO.SiO₂, 2CaO.SiO₂, 3CaO.Al₂O₃, 4CaO.Al₂O₃.Fe₂O₃, CaSO₄ and Ca(OH)₂ with SiO₂ crystalline silica in the aggregates.

11. Stability and Reactivity

Conditions contributing to chemical instability: None.

Hazardous decomposition products: None.

Special precautions: None.

ANDURA COATINGS LTD**12 Toxicological Information****12.1 Short Term Effects****Eye Contact**

The cement component is a severe eye irritant. Mild exposures can cause soreness. Gross exposures or untreated mild exposures can lead to chemical burning and ulceration of the eye.

Skin

Dry render particulate or wet render mixture may cause irritant contact dermatitis, allergic (chromium) dermatitis, and/or burns.

Ingestion

The swallowing of small amounts of render particulate or wet render mixture is unlikely to cause any significant reaction. Larger doses may result in irritation to the gastro intestinal tract.

Inhalation

Dry render particulate may cause inflammation of mucous membranes.

12.2 Chronic Effects

Repeated exposures in excess of the OES have been linked with rhinitis and coughing. Skin exposure has been linked to allergic (chromium) dermatitis. Allergic dermatitis more commonly arises through contact with wet render mix than dry render particulate.

13. Ecological Information**13.1. Aquatic Toxicity Rating**

LC50 aquatic toxicity rating not determined. The addition of render to water will, however, cause the pH to rise and may therefore be toxic to aquatic life in some circumstances.

13.2. Biological Oxygen Demand (BOD)

Not applicable.

14. Disposal Considerations

Dispose of empty bags or surplus render to a place authorised to accept builder's waste. Keep out of the reach of children.

15. Transport Information

Classification for conveyance: Not required.

16. Regulatory Information**16.1. Chemicals (Hazard Information & Packaging) Regulations**

Classification: Irritant.

ANDURA COATINGS LTD**16.2. Risk Phrases**

- Contains chromium (VI). May produce an allergic reaction.
- Risk of serious damage to eyes.
- Contact with wet render may cause irritation, dermatitis or burns.
- Contact between dry render particles and body fluids (eg sweat and eye fluid) may also cause skin and respiratory irritation, dermatitis or burns.

16.3. 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.

17. Legislation and Other Information

- CONIAC Health Hazard Information Sheet No 26, Cement.
- Health & Safety at Work Act 1974.
- Control of Substances Hazardous to Health (Regulations).
- Portland cement dust – Criteria document for an occupational exposure limit, June 1994, ISBN 07176 – 0763-1.
- HSE Guidance Note EH26, Occupational Skin Diseases – Health and Safety Precautions, HMSO 1981.
- HSE Guidance Note EH40, Occupational Exposure Limits.
- Any authorised manual on First Aid by St. Johns/St. Andrews/Red Cross.
- Manual Handling Operations Regulations 1992.
- Environmental Protection Act.