SAFETY DATA SHEET

Additive: PRO-Mix Render

Section 1: Identification of the Material and Supplier

Company Details

Cement Australia Pty Limited

ABN 75 104 053 474

18 Station Avenue
Darra, Queensland 4076

Tel: 1300 CEMENT (1300 236 368)
Fax: 1800 CEMENT (1800 236 368)
Website: www.cementaustralia.com.au / www.mixitlikeapro.com.au

Emergency Contact Number:

Contact Person: Technical Manager
Telephone: 1300 CEMENT (1300 236 368) (Business Hours) or
Poisons Information Centre 13 11 26

Manufacturing Plants

Coopers Plains: Alton Street, Coopers Plains, 4108 QLD

Product

Name: **PRO-Mix Render**

Use: PRO-Mix Render is an additive used to improve the performance of Sand and Cement mixture as a render.

Section 2: Hazards Identification

Classified as hazardous according to Safe Work Australia criteria. Not classified as a dangerous goods by the criteria of the ADG code, IMDG or IATA

Risk Phrases

R36/37/38: Irritating to eyes, respiratory system and skin.

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R48/20: Danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrases

S22: Do not breathe dust.

S24/25: Avoid contact with skin and eyes.

S29: Do not empty into drains.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment

Section 3: Composition/Information on Ingredients

Chemical Entity	Proportion	CAS Number
Calcium Hydroxide	>60%	1305-62-0
Synthetic Copolymer Additive	10-30%	(Non-Hazardous)
Aluminium Oxide	<10%	1344-28-1
Modified Cellulose	<10%	9032-42-2
Silicon Dioxide	<10%	7631-86-9
Water	<10%	7732-18-5
Crystalline Silica (Quartz)	<1%	14808-60-7
Iron Oxide	<1%	1309-37-1
Magnesium Hydroxide	<1%	1309-42-8

Section 4: First Aid Measures

Swallowed:	Wash mouth and lips with copious amounts of water, and give limited amounts of milk or water to drink (150ml). Do not induce vomiting. Seek medical attention.
Eyes:	Hold eyes open and flush with copious amounts of water for at least 10 minutes. Seek medical attention.
Skin:	Immediately remove all contaminated clothing, including footwear. Wash material off skin, using plenty of water preferably under shower. If effects persist, seek medical attention.
Inhaled:	Remove to fresh air away from the dusty area. Seek medical attention.
First Aid Facilities:	Eye wash station. Washing facilities with running water.
Advice to Doctor:	Treat symptomatically as for poisoning with strong alkali. Due to its physical properties, may cause mechanical irritation. Product may agglutinate in the gastro-intestinal tract. Medical assistance should be sought. Depending on the symptoms, invasive measures may be necessary. Contact Poisons Information Centre: Tel 13 11 26 (Australia wide)

Section 5: Fire Fighting Measures

Fire/Explosion Hazard:	Contains combustible solids. Do not permit dust to accumulate. When suspended in air dust can pose an explosion hazard. Minimize ignition sources. If dust layers are exposed to elevated temperatures, spontaneous combustion may occur. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge.
Hazchem Code:	None allocated
Flammability:	Non flammable
Extinguishing Media:	Water spray, carbon dioxide, dry chemical or appropriate foam. (Note: do not use water jet)
Hazards from Combustion Products:	May evolve toxic gases if strongly heated, hydrogen chloride, carbon monoxide, carbon dioxide.
Danger of violent reaction or explosion:	Violent reactions with maleic anhydride, nitroethane, nitromethane, nitroparaffins, nitropropane and phosphorus
Evacuate:	No

Section 6: Accidental Release Measures

Spills:	Spills are best cleaned up by vacuum device or covered with moist soil to prevent dust generation and dispose of to approved Council landfill. Ventilate area and wash spill site after material clean-up is complete. Recommendations on Exposure Control and Personal Protection should be followed during spill clean-up. Keep product out of storm water and sewer drains.

Section 7: Handling and Storage

Handling:	Do not permit dust to accumulate. Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Electrically ground and bond all equipment. Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.
Storage:	Observe precautionary measures against dust explosion. Store a cool protected place away from moisture, strong oxidants or acids and to minimize dust emissions. Storage in steel or concrete bins and silos, or plastic lined bags, is appropriate.

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

National Occupational Health & Safety Commission (NOHSC) Australia Occupational Exposure Standard:
Exposure to dust should be kept as low as practicable and below the following OES. Calcium oxide 2 mg/m$_3$ TWA (time-weighted average).

Crystalline silica (quartz): 0.1 mg/m$_3$ TWA as respirable dust (<7 microns particle equivalent aerodynamic diameter).

Engineering Controls:

All work with should be carried out in a manner that minimises dust generation, exposure to dust and repeated skin contact. Do not breathe dust. Do not eat, drink or smoke when handling. When handling use local mechanical ventilation or extraction in areas where dust could escape into the work environment. For handling of individual bags, follow instructions for personal protection. Work areas should be cleaned regularly by wet sweeping or vacuuming. Observe precautionary measures against dust explosion.

Personal Protection

Skin:

If handling Pro Mix Render or products contains Hydrated Lime; personnel should wear protective clothing and impervious boots, (Australian and New Zealand Standard AS/NZS 4501) and suitable impervious gloves such as PVC (AS 2161). Remove clothing which has become contaminated with wet or dry product to avoid prolonged contact with the skin. If product gets into boots, remove socks and boots immediately and wash skin thoroughly. Wash work clothes regularly. To avoid contamination of face and lips and ingestion, wash hands before eating, or smoking.

Eyes:

Avoid contact with eyes. Splash resistant Safety Glasses with side shields or safety goggles (AS/NZ 1336) should be worn or a face-shield.

Respiratory:

In dusty environments use a respirator (filter mask) such as Class P1 or P2 (Australian and New Zealand Standards AS/NZS 1715 and AS/NZS 1716).

Section 9: Physical and Chemical Properties

Appearance:	White to off-white powder
Odour:	None
pH:	Approx. 12
Vapour Pressure:	Not applicable
Vapour Density:	Not applicable
Boiling Point:	Not applicable
Melting Point:	Not applicable
Solubility In Water:	Soluble
Bulk Density:	400-700kg/m3
Flash Point:	Not applicable
Flammability Limits:	Not Available
Medium Particle Size:	< 100μm
Decomposition Temperature:	>220ºC

Section 10: Stability and Reactivity

Chemical Stability:	Chemically Stable
Conditions to Avoid:	Avoid temperatures above 130 ℃. Exposure to elevated temperatures can cause product to decompose. Avoid static discharge. May absorb carbon dioxide from the atmosphere, forming calcium carbonate.
Incompatible Materials:	Reacts vigorously with acids, generating some heat. Incompatible with oxidising agents, maleic anhydride, nitroparaffins, and phosphorus.
Hazardous Decomposition Products:	May evolve toxic gases if strongly heated, hydrogen chloride, carbon monoxide, carbon dioxide.
Hazardous Reactions:	None, Polymerization will not occur

Section 11: Toxicological Information

Short Term (Acute) Exposure

Swallowed: May be harmful if swallowed (Unlikely under normal industrial use). Has a caustic reaction and is corrosive to the mouth and throat.

Eyes: Irritating and corrosive to the eyes and may cause alkaline burns. May cause chemical conjunctivitis and redness and watering of eyes and damage to cornea.

Skin: Irritating and drying to the skin. May cause alkali burns and irritant or allergic dermatitis. Direct contact with wet material may cause serious skin burns. Within 12 to 48 hours (after one- to six-hour exposures) possible first, second or third degree burns may occur. There may be no obvious pain at the time of the exposure. Chronic skin disorders may be aggravated by exposure to dust or contact with wet material.

Inhaled: Irritating to the nose, throat and respiratory system causing coughing and sneezing.

Long Term (Chronic) Exposure

Skin: Prolonged exposure may cause irritant dermatitis.

Inhaled: Repeated exposure may cause severe mucous membrane irritation, bronchitis and pneumonia. Repeated and prolonged exposure to dust levels which exceed the OES for crystalline silica (see above) may occur. This can cause bronchitis, and silicosis (scarring of the lung). Long-term overexposure to respirable crystalline silica dust may increase the risk of other irreversible and serious disorders including scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). NOHSC has not classified crystalline silica as a carcinogen. There is debate in the medical literature concerning whether there is any risk of lung cancer arising from long term high overexposure to respirable crystalline silica. Risk of lung cancer has not been identified from using this product. The International Agency for Research on Cancer (IARC) has classified Crystalline Silica inhaled in the form of quartz or cristobalite from occupational sources, as carcinogenic to humans (Group 1).

Toxicity Data CALCIUM HYDROXIDE (1305-62-0)
LD50 (Ingestion): 7300 mg/kg (mouse)
QUARTZ (SILICA CRYSTALLINE) (14808-60-7)
LCLo (Inhalation): 300 ug/m^3/10 years (human)
LDLo (Intratracheal): 200 mg/kg (rat)
LDLo (Intravenous): 20 mg/kg (dog)
TCLo (Inhalation): 16 000 000 particles/ft3/8 hours/17.9 years (human-fibrosis)
CALCIUM CARBONATE (471-34-1)
LD50 (Ingestion): 6450 mg/kg (rat)
MAGNESIUM HYDROXIDE (1309-42-8)
LD50 (Ingestion): 8500 mg/kg (rat, mouse)
LD50 (Intraperitoneal): 815 mg/kg (mouse)
TDLo (Ingestion): 2747 mg/kg (infant)
IRON (III) OXIDE (1309-37-1)
LDLo (Subcutaneous): 30 mg/kg (dog)

Synthetic Copolymer Additive (No CAS#, Non Hazardous and Non Dangerous good)
LD50(Oral): > 2000 mg/kg (rat). Source: Conclusion by analogy OECD 423
Skin irritation hazard: Not Irritating (rabbit). Source: Conclusion by analogy OECD 404
Eye irritation hazard: Not Irritating (rabbit). Source: Conclusion by analogy OECD 405
Sensitization reaction(Dermal): Not Sensitizing (mouse; LLNA). Source: Conclusion by analogy OECD 429
Mutagenic potential: Negative (mutation assay (in vitro) bacterial cells). Source: Conclusion by analogy OECD 471

Section 12: Ecological Information

This product is not anticipated to cause adverse effects to animal or plant life if released to the environment in small quantities. Not expected to bioaccumulate.

Ecotoxicity: Because of the high pH of this product, it would be expected to produce significant acute ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and Degradability: Product has no bioaccumulation or food chain toxicity potential.

Mobility: Soluble in water (as hydroxide) to form alkaline solution. Low mobility in most ground conditions.

Section 13: Disposal Considerations

Material should be recycled, or neutralised with dilute hydrochloric acid to a pH of 6-9, before disposal in accordance with local authority guidelines. Keep out of sewer, storm water drains, and natural waterways.

Section 14: Transport Information

Transportation is done in bag form by Ship, Rail and Road.

UN Number:	None allocated
Proper Shipping Name:	None allocated
Class and Subsidiary Risk:	None allocated
Packing Group:	None allocated
Special precautions for user:	Avoid generating dust, skin and eye contact and breathing dust
Hazchem Code:	None allocated

Section 15: Regulatory Information

PRO-Mix Render is not classified as Dangerous Goods.

Classified as Hazardous according to the criteria of the National Occupational Health and Safety Commission (NOHSC) approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition Exposures by inhalation to high levels of dust may be regulated under the Hazardous Substances Regulations (State) as they are applicable to Respirable Crystalline silica, requiring exposure assessment, controls and health surveillance (NOHSC).

Section 16: Other Information

For further information on this product contact:	**Telephone:** 1300 CEMENT (1300 236 368) (Business Hours) **Facsimile:** 1800 CEMENT (1800 236 368)

Next Review Date for this MSDS: 31 December 2016.

Australian and New Zealand Standards:

AS 2161: Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).

AS/NZ 1336: Recommended Practices for Occupational Eye Protection.

AS/NZS 1715: Selection, use and maintenance of respiratory protective devices.

AS/NZS 1716: Respiratory protective devices.

AS/NZS 4501: Occupational protective clothing.

Advice Note:

Cement Australia believes the information in this document to be accurate as at the date of preparation noted below, but, to the maximum extent permitted by law, Cement Australia accepts no responsibility for any loss or damage caused by any person acting or refraining from action because of this information.

The provision of this information should not be construed by anyone as a recommendation to use this product. In particular, no one should use any product in violation of any patent or other intellectual proprietary rights or in breach of any statute or regulation.

Users should rely on their own knowledge and inquiries and make their own determination as to the applicability of this information in relation to their particular purposes and specific circumstances. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace and in conjunction with other substances or products.