



Material Safety Data Sheet (MSDS)

MSDS No. PP013

Page 1 of 5
Issue Date: 28 July, 2004
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CONCRETE MIX

Section 1: IDENTIFICATION of the MATERIAL & SUPPLIER

Product Name: Concrete Mix
Other Names: None
Manufacturer's Product Code: 031195 - 40kg, 031161 – 30 kg, 031138 - 20kg, 817262 - 10kg
Use: To produce concrete

Supplier Name: Cement Australia
Supplier Phone: Sales (03) 9688 1990

Emergency: **1800 339942**

Section 2: HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS
(Classified according to the criteria of WORKSAFE Australia)

Risk Phrases

R36/37/38: Irritating to eyes, respiratory system and skin
R40: Possible risk of irreversible effects
R43: May cause sensitisation by skin contact
R48/20: Harmful: 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
S36/37: Wear suitable protective clothing and gloves

Section 3: COMPOSITION / INGREDIENT INFORMATION

<u>Ingredients</u>	<u>CAS Number</u>	<u>Proportion</u>
Portland cement	65997-15-1	15 – 18%
Washed sand	14808-60-7	30 - 40%
Washed aggregate (14mm)		42 - 55%
Hexavalent chromium [Cr(VI)] (water soluble)	1333-82-0	< 20ppm
Crystalline silica [in GP cement]	14808-60-7	0.1 - 0.3%

CONCRETE MIX

Section 4: FIRST AID MEASURES

SWALLOWED

Health Effects: Is mildly abrasive and corrosive and may cause nausea/stomach cramps/constipation

First Aid: Rinse mouth with milk or water. DO NOT give carbonated (fizzy) drinks.

DO NOT induce vomiting. After rinsing the mouth, give milk or water to drink.

If symptoms persist, seek medical attention.

EYE

Health Effects: Wet sand and cement is irritating and may be abrasive to the eyes.

First Aid: Flush eyes with tepid running water for at least 15 minutes, removing any foreign bodies. Seek medical attention, if symptoms persist.

SKIN

Health Effects: Wet mortar is irritating and corrosive to skin and may cause skin sensitisation (dermatitis). There may be a trace of water soluble hexavalent chromium present in Portland Cement which may cause allergic dermatitis in some individuals.

First Aid: Wash with tepid soapy water; shower if necessary.

INHALED

Health Effects: Repeated inhalation of the dust may cause bronchitis, silicosis and lung cancer.

First Aid: Remove from area. Keep at rest. Seek medical advice if symptoms persist.

CHRONIC HEALTH EFFECTS

Repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung) and lung cancer. It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). The International Agency for Research on Cancer (IARC) states: "*Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)*".

ADVICE TO DOCTOR

Treat symptomatically

AGGRAVATED MEDICAL CONDITIONS CAUSED BY EXPOSURE

Studies have shown that smoking increases the risk of bronchitis, silicosis and lung cancer in persons exposed to crystalline silica.

**CONCRETE MIX****Section 5: FIRE FIGHTING MEASURES**

HAZCHEM CODE:	None allocated
FLAMMABILITY:	Not flammable
EXTINGUISHING MEDIA:	Not flammable
HAZARDS FROM COMBUSTION PRODUCTS:	Not flammable
SPECIAL PROTECTIVE PRECAUTIONS & EQUIPMENT FOR FIRE FIGHTERS:	None

Section 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES:	Avoid generating and breathing dust. If dust is generated, wear a class P ₁ or P ₂ particulate respirator (AS/NZS 1715, 1716).
CONTAINMENT PROCEDURES:	Product is a dense powder which will generally remain within the release zone.
CLEAN-UP PROCEDURES:	Follow safety requirements for personal skin, eye and respiratory protection. Spills should be cleared by any dry method such as broom, shovel or vacuum taking care to minimise dust generation.

Section 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	It is recommended that all manual handling of this bag be undertaken by load shifting equipment. Manual Handling of this product is not recommended as this may result in personal injury. If no mechanical aids are available, you must not lift this item unless you share the load with 2 or more persons for weights up to 20 kilograms, and 3 or more persons for weights up to 40 kilograms. For weights greater than 40 kilograms, mechanical aids for load shifting must be used. Prior to manual handling, it is recommended that a manual handling risk assessment be undertaken. Personal safety requirements outlined in Section 8.
CONDITIONS FOR SAFE STORAGE:	Keep dry at all times. Keep in moisture proof containers / silos to prevent hardening
INCOMPATIBILITIES:	None

Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS: Worksafe Australia Exposure Standard
Total dust, containing no asbestos and < 1% crystalline silica, Threshold-Limit-Value (TLV) Time weighted-Average (TWA) 10 mg/m³ measured as inspirable dust.

Crystalline silica (quartz): 0.2 mg/m³ TWA as respirable dust (≤ 7 micron particle equivalent aerodynamic diameter).

Respirable crystalline silica (quartz) exposure levels should be kept below the Cement Australia upper threshold limit of 0.05 mg/m³ TWA. However, where a State or Territory prescribes a lower exposure standard, the lower exposure standard applies.

CONCRETE MIX

- BIOLOGICAL LIMIT VALUES:** None stated
- ENGINEERING CONTROLS:** Avoid generating dust. Where dust could be generated use local mechanical ventilation or extraction in areas where dust could escape into the work environment.
- PERSONAL PROTECTIVE EQUIPMENT:**
- SKIN** Wear loose comfortable protective clothing and impervious boots. Apply barrier creams to hands or wear gloves (AS 2161). Wash thoroughly after handling. Wash clothes regularly and keep separate from other clothes.
- EYES** Safety spectacles with side shields or safety goggles (dust resistant AS/NZS 1336) should be worn if dust is likely to be generated.
- RESPIRATORY** None required if engineering controls are adequate. If dust is generated, wear a suitable class P₁ or P₂ particulate respirator (AS/NZS 1715). Note that persons with facial hair will have difficulty in obtaining a satisfactory face seal. For alternatives, refer AS/NZS 1715.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Grey sandy mixture of fine and coarse (14mm) solid particles		
Odour:	No odour		
pH:	Not applicable	Specific Gravity/Density:	2.14
Boiling Point/Range:	Very high temp	Freezing/Melting Point:	Very high temp. (> 1200°C)
Vapour Density:	Nil	Vapour Pressure:	Not applicable
Solubility:	Some components slightly soluble in water forming an alkaline (caustic) product (pH 11+)		
Flash Point:	Not applicable		
Ignition Temperature:	Not applicable		
UFL:	Not applicable		
LFL:	Not applicable		
Additional Information:	No additional relevant information		

Section 10: STABILITY & REACTIVITY

Chemical Stability:	Chemically stable
Conditions to Avoid:	Avoid moisture to prevent hardening
Incompatible Materials:	None
Hazardous Decomposition Products:	None
Hazardous Reactions:	None with the normal range of industrial materials



CONCRETE MIX

Section 11: TOXOLOGICAL INFORMATION

Health effects from the likely routes of exposure: Refer Section 4: FIRST AID MEASURES

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Product may be eco damaging as it can form an alkaline slurry with water

Persistence & Degradability: Product would be persistent and have a low degradability

Mobility: A low mobility would be expected in a landfill setting

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods & Containers: Follow safety requirements indicated in Section 6. Collect in containers and dispose as trade waste in accordance with local authority guidelines.

Special considerations for landfill or incineration: Avoid generating dust during disposal

Section 14: TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Class & Subsidiary Risk: Not applicable
Packaging Group: None allocated
Special Precautions for Use: Avoid generating and breathing dust
Hazchem Code: None allocated

Section 15: REGULATORY INFORMATION

Australian Legislation: Hazardous according to Worksafe Australia criteria

Section 16: OTHER INFORMATION

Date of preparation or last revision of MSDS

Prepared in accordance with the National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]

End of Report