



1. PRODUCT IDENTIFIER AND SUPPLIER

Product Identifier:	HUNTER READYMIXED PRE-MIXED CONCRETE
Other Mean of Identification:	ready-mixed concrete, pre-mixed concrete, wet concrete, plastic concrete, grouts, mortars
Recommended Use:	Pre-mixed concrete is used for a wide variety of applications in building and civil engineering works. It is used for encapsulating steel work as well as structural applications for footings and formwork.
Other Information:	Pre-mixed concrete begins to harden within about one hour and is quite hard within eight hours. The rate of settling and MPa rating (compressive strength) depends on ambient conditions (temperature, wind and humidity) and the particular mix design.
Suppliers Name:	Hunter Readymixed Concrete Pty Ltd.
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Telephone:	02 4966 5724
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Emergency Phone:	Emergency Services 000, Poisons Information Centre 13 1126

2. HAZARD(S) IDENTIFICATION

2.1 Classification

CLASSIFIED AS **HAZARDOUS** ACCORDING TO CRITERIA APPROVED BY SAFE WORK AUSTRALIA.

Classified as a **Non-Dangerous Good** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS Classification(s) Skin Corrosion / Irritation: Category 2
Serious Eye Damage / Eye Irritation: Category 2A

2.2 Label Elements

Signal Word	WARNING
Pictogram(s)	
Hazard Statement(s)	
H315	Causes skin irritation
H319	Causes serious eye injury
Prevention Statement(s)	
P264	Wash thoroughly after handling
P280	Wear protective gloves / protective clothing / eye protection / face protection
Response Statement(s)	
P302 + P352	IF ON SKIN: Wash off with plenty of soapy water
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. If present and easy to do, remove contact lenses. Continue rinsing with water.
P321	Specific treatment is advised – see first aid instructions.

P332 + P337 + P313 P362	If skin or eye irritation occurs: Obtain medical attention / advice. Take off contaminated clothing and wash before re-wearing.
Storage Statement(s)	Non allocated
Disposal Statement(s)	Non allocated

2.3 Other Hazards

Inhalation:	Pre-mixed concrete in its wet or plastic state is not expected to result in over exposure by inhalation. Hardened or set concrete however may produce dust through cutting, grinding and demolition processes. Acute respiratory irritation through inhalation of dust may occur with over-exposure. Chronic over exposure through inhalation of dust containing silica quartz may result in silicosis (lung disease), which is characterised by coughing and breathlessness. Water spraying should be used to control situations where dust may be generated.
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3. Composition / Information on Ingredients

Ingredient	CAS Number	EC Number	Content
Portland Cement, Fly Ash, Slag			10 to 60%
Gravel			30 to 60%
Water	7732-18-5	231-791-2	>10%
Crystalline Silica (Quartz), i.e. Sand	14808-60-7	238-878-4	30 to 60%
Admixtures (i.e. such as water reducers, set retarders, set accelerators, plasticisers and waterproofing agents (refer AS 1478)			<10%

Ingredient Notes:	<ol style="list-style-type: none"> Crystalline silica (quartz) may be a constituent of sand, crushed stone, gravel, blast furnace slag and fly ash used in any particular concrete mix. The proportion of crystalline silica (% of quartz) in the product will vary according to the rock sources of the gravel(s) or sand(s). Cement in concrete contains traces of Chromium VI (hexavalent). Additives may contain traces of metals. The exact ratio of ingredients in Pre-mixed concrete may vary slightly. Minor quantities of other non-hazardous ingredients are possible.
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4. First Aid Measures

4.1 Description of First Aid Measures

Eye Contact	Flush thoroughly with flowing water for 15 minutes to remove all traces. If symptoms such as irritation or redness persist, seek medical attention. If wet concrete is splashed in the eye, always treat as above and get urgent medical attention.
Skin Contact	Remove heavily contaminated clothing immediately. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent redness, irritation or burning of the skin.
Inhalation	Remove to fresh air, away from dusty area. If symptoms persist, seek medical attention. Good work practices should be followed when dust is generated, e.g.

PPE such as dust masks (P2) should be worn.

Swallowed / Ingested

Rinse mouth and lips with water. Do not induce vomiting. Give water to drink to dilute stomach contents. You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia and is available at all times. Have this SDS with you when you call.

4.2 Symptoms Caused by Exposure

Irritating and potentially corrosive to the eyes and skin. In the wet or plastic state, over exposure via inhalation is not anticipated in normal use. In the hardened or set state dust may be generated via cutting, grinding or demolition. Chronic over exposure to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness.

Some individuals may exhibit an allergic response upon exposure to this product, possibly due to the trace amounts of chromium present. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1).

4.3 Medical Attention and Special Treatment

Treat symptomatically for contact with moderate to strong alkali.

Wet concrete contact to skin or eye(s) may result in corrosive caustic burns. Ingestion of significant amounts of concrete is unlikely. Do not induce vomiting or perform stomach pumping. Neutralisation with acidic agents is not advised because of increased risks of exothermic burns. Water-mineral oil soaks may aid in removing hardened concrete from the skin. Ophthalmologic opinion should be sought for ocular burns.

5. Fire Fighting Measures

5.1 Suitable extinguishing equipment:

Not applicable. Use extinguishing media suited to burning materials.

5.2 Specific hazards arising from the Chemical

Non-flammable. Concrete is a stable substance, compatible with most other building materials. Will not decompose into hazardous by-products or polymerise. If strongly heated may evolve toxic gases.

5.3 Special protective equipment and precautions for fire fighters

Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use water-fog to cool intact containers and nearby storage areas.

5.4 Hazchem Code

None allocated.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure personnel working with the concrete or working nearby wear Personal Protective Equipment (PPE) as outlined in section 8 of the SDS. Contact emergency service if required.

6.2 Environmental precautions

Prevent product from entering storm water, sewer drains and watercourses.

6.3 Methods and materials for containment and cleaning up

Contain the spillage then use absorbent material (sand, vermiculite or similar) to bund / cover / soak up the product. Place into suitable containers for disposal. Recommendations on Exposure Controls (Section 13) / Personal Protection (see section 8 below) should be followed during clean-up. Contact emergency service where appropriate.

7. Handling and Storage

7.1 Precautions for safe handling

Before using the product carefully read the WARNING on the delivery docket and the SDS. Use safe work practices to avoid exposure to inhalation, skin contact and eye contact. Avoid generating dust.

Wet concrete is a heavy material and appropriate control of manual handling risk is required when barrowing, shovelling or carrying quantities of wet concrete. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed.

Contact with sugars, acids or solutions of either will cause a serious degradation of the quality of the material. A safety hazard is created by such contact due to the potential failure of the structure being constructed. Similarly, handling and transporting the material at temperatures less than 0° C or greater than 30° C may cause a degradation of the quality of the material with a consequent safety hazard arising from the potential weakening of the structure being constructed.

Wash face and hands before eating and drinking.

7.2 Conditions for safe storage, including any incompatibilities

Wet pre-mixed concrete has a limited life after batching and will set hard. The rate of setting (generally +/- 90 minutes) depends on environmental conditions, use of set retarders and accelerators and the amount of agitation. It may be stored for very short periods of time (less than twenty minutes). Storage should be in a clean, dry, well ventilated area.

Incompatibilities: None

8. Exposure Controls and Personal Protection

The National Occupational Exposure Standard (NOES) can be found at Safe Work Australia <http://safeworkaustralia.gov.au/>. Exposure to dust should be as low as practicable and below the following NOES:

Crystalline Silica as Respirable Dust: < 7 microns particle equivalent aerodynamic diameter

8.1 Exposure limits:

Ingredient	TWA (mg/m ³ P) ^P	STEL (mg/m ³ P) ^P
Crystalline Silica (quartz)	0.1 mg/m ³ TWA ^P	Not set
Total Dust (of any type or particle size)	10 mg/m ³ PTWA ^P	
Chromium VI (hexavalent):	0.05 mg/m ³	

The TWA exposure (time weighted average) value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The term "peak" is used when the TWA limit should never be exceeded, even briefly, because of the rapid action of the substance.

The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15

minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL.

8.2 Biological limits:

No biological limits have been entered for this product

8.3 Exposure controls:

Engineering controls:

If placing concrete in enclosed areas or a confined space ensure adequate forced ventilation. When dry concrete dust is present ensure exposures to respirable crystalline silica (quartz) are maintained below NOES.

PPE:



Skin Protection

Minimise contact with concrete materials. When handling wet concrete, mortar or grout, personnel should wear loose comfortable protective clothing (long sleeves and trousers) and impervious boots (AS/NZS 4501) and suitable impervious gloves such as PVC (AS2161). Never kneel in wet concrete or allow extended contact of skin with wet concrete.

Remove clothing which has become contaminated with wet or dry concrete to avoid prolonged contact with the skin. If concrete gets into boots, remove socks and boots immediately and wash skin thoroughly. Wash work clothes regularly to avoid contamination. Wash hands before eating or smoking.

Eye and face Protection

Avoid contact with the eyes. Splash resistant safety glasses with side shields or safety goggles or a face shield should be worn.

Respiratory protection

Where inhalation exposure is present (dust or droplets from spraying wet concrete) wear a suitable P2 or P1 particulate respirator chosen and used in accordance with site risk assessment. Where high levels of dust are encountered, more efficient cartridge type or powered respirators for air helmets or suits may be necessary.

Local mechanical ventilation or extraction may be required in areas where spray droplets from wet concrete or dry dust could escape into the work environment.

Use only respirators that bear the Australian Standards mark and are fitted and correctly maintained.

9. Physical and Chemical Properties

Appearance:	Plastic mixture of water, Portland cement and aggregates. The consistency of the mixture ranges from near liquid to a friable damp earth-like mixture. The most common plasticity has a cohesive porridge like appearance. The colour is usually grey although colour can be varied by adding metallic oxide pigments.
Odour:	Some added ingredients used in concrete may create a smell of ammonia.
pH Value:	12-13
Vapour Pressure:	No Determined
Boiling Point:	Not Available.
Freezing/Melting Point:	Solid at normal temperatures. Melting Point > 1200°C
Flash Point	Not Available
Evaporation Rate:	Not Applicable.
Flammability Limits:	Not Applicable
Vapour Density:	Not Applicable no vapour emitted.

Water Solubility:	Forms slurry, not soluble or slight, reacts on mixing with water forming and alkaline (caustic) solution (pH>11)
Specific Gravity:	2.5 (H2B OB =1)
Flash Point:	Not Applicable
Explosive Properties:	Not flammable or explosive
Auto-ignition Temperature	Not Available
Decomposition Temperature	Not Available
Viscosity	Not Available
% Volatiles	Not Available

10. Stability and Reactivity

10.1 Reactivity

This product is unlikely to react or decompose under normal storage conditions. (see 10.2 to 10.6 below)

10.2 Chemical Stability

Stable

10.3 Possibility of hazardous reactions

Polymerisation is not expected to occur

10.4 Conditions to Avoid

Dust generation, heat, open flame, ignition sources, incompatible substances

10.5 Incompatible materials

Incompatible with acids, oxidising agents (hypochlorites), ethanol, interhalogens (e.g. chlorine trifluoride)

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition (>1,200°C)

11. Toxicology Information

Acute Toxicity	No known toxicity data is available for this product. Based on available data, the classification criteria are not met.
Skin corrosion / irritation	Irritating to the skin. Contact may result in irritation, redness, pain, rash and dermatitis. Caution: Contact with wet or plastic concrete in normal use may cause serious skin burns.
Serious eye damage/irritation	Irritating to the eyes. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible caustic (alkaline) burns with potential for permanent loss of vision.
Respiratory or skin sensitisation	This product is not classified as a skin or respiratory sensitiser. However, some individuals may exhibit an allergic response upon exposure to cement, possibly due to trace amounts of chromium.
Germ cell	Insufficient data available to classify as a mutagen.

mutagenicity

Carcinogenicity This product contains crystalline silica which is classified as carcinogenic to humans (IARC Group 1). There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk.

Hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1). Due to the trace amounts present, the criteria for classification is not met.

Reproductive toxicity Insufficient data is available to classify as a reproductive toxin.

Specific Target Organ Toxicity (STOT) – single exposure If dust is generated over exposure may result in irritation of the nose and throat, with coughing. Breathing difficulties may present with high levels of exposure to concrete dust.

Specific Target Organ Toxicity (STOT) – repeated exposure In the wet or plastic product state, over exposure via inhalation is not anticipated with normal use.

In the dry or set product state if dust is generated (via cutting, grinding, demolition activities, etc), repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness.

Aspiration hazard This product is not expected to present an aspiration hazard.

12. Ecological Information

Ecotoxicity:	Product forms an alkaline slurry when mixed with water and may be harmful to the aquatic environment. When set the product is non-toxic to marine life.
Persistence and degradability:	Persistent and have a low degradability
Bioaccumulative potential	Not expected to bioaccumulate
Mobility in Soil:	Low mobility expected in a landfill situation
Other Adverse Effects	Prevent contamination of drains and waterways

13. Disposal Considerations

13.1 Handling and Disposal Methods:

Personal precautions should be observed (see section 8) when handling and avoid dust generation.

Where possible/permissible reuse/recycle into construction materials/products.

Pre-mixed concrete is pre-classified as construction and demolition waste and can be disposed of in an approved landfill in accordance with government regulations.

Keep out of storm water and sewer drains.

14. Section 14: Transport Information

UN Number:	None allocated
Proper shipping name or Technical Name	None allocated
Transport hazard class	None allocated
Packing Group:	None allocated
Environmental hazards for Transport Purposes	None allocated
Special Precautions for user	Transport equipment should be strong enough to contain a fluid with an effective specific gravity of 2.5

Hazchem or Emergency Action Code None allocated

15. Regulatory Information

15.1 Safety, health and environmental regulations

Allocated Poisons Schedule	Not allocated under the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Commonwealth) (as amended).
Prohibition or notification / licensing requirements	None
Control-of-use legislation	None
Australian Inventory of Chemical Substances (AICS)	All components are either listed or exempt
Other Regulations	Exposures by inhalation to high levels of dust may be regulated under the WHS Regulation 2011, Schedule 14.1, Crystalline Silica, requiring exposure assessment, and control of inhalation exposure below the National Occupational Exposure Standard (NOES). Persons who have potential for exposure to respirable crystalline silica dust above the NOES may be required to have periodic health monitoring (see WHS Regulation 2011, Division 6)

16. Other Information

16.1 Cement Contact Dermatitis:

Using wet or plastic concrete, mortar, grout and cement can present a risk of developing cement dermatitis due to the presence of soluble (hexavalent) chromium. Symptoms of exposure include cracked or blistering skin which may become itchy, swollen, hot or tender with potential for sensitisation.

16.2 Australian Standards References:

The following is a guide only in relation to personal protective equipment:

AS/NZS 1336	Recommended practices for occupational eye protection
AS/NZS 1715	Select, use and maintenance of respiratory protective devices
AS/NZS 1716	Respiratory protective devices
AS 2161	Industrial safety gloves and mittens (excluding electrical and medical gloves)
AS/NZS 2210	Safety, protective and occupational footwear

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in normal use. Each user must review this SDS in the context of how the product will be handled and used by them. The Supplier has no responsibility for any damage or injury resulting from abnormal use, or from any failure to adhere to safe work practices, or from any hazards inherent in the nature of the products, or an inadequate risk assessment for safe use.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the Supplier.

The most recent copy of this SDS can be found on the Suppliers website www.hunterreadymixedconcrete.com.au and should be referenced as printed copies may have been superseded with more current information.

END OF SDS