

# SAFETY DATA SHEET

According to Safe Work Australia

Printing date 02.04.2013

Revision: 02.04.2013

## 1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name: PRE-MIXED CONCRETE**

**Recommended Use of the Chemical and Restriction on Use:**

Premix concrete is used for a wide variety of applications in building and civil engineering projects. When sprayed it is used for encapsulating steel work as well as structural applications.

**Details of Manufacturer or Importer:**

CCS Group Pty Ltd  
Clutha Creek Rd,  
Tamborine Village, Queensland 4270

**Phone Number:** (07) 5543 6376

**Emergency telephone number:** 13 11 26 (Poisons Information Centre)

## 2 . HAZARDS IDENTIFICATION

**Hazardous Nature:**



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

**Label Elements**

**Signal Word** Warning

**Hazard Statements**

H302+H312 Harmful if swallowed or in contact with skin.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

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P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container in accordance with local/regional/national regulations.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

### Chemical Characterization: Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

### Hazardous Components:

14808-60-7	Quartz (SiO <sub>2</sub> )	20-85%
65997-15-1	Cement, portland, chemicals ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	10-60%
1333-82-0	chromium (VI) trioxide ⚠ Ox. Sol. 1, H271; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1A, H350; Repr. 2, H361; STOT RE 1, H372; ⚠ Skin Corr. 1A, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317	0.002%

## 4. FIRST AID MEASURES

**Inhalation:** If inhaled, remove to fresh air. Seek medical attention if breathing problems develop.

### Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

### Eye Contact:

In case of eye contact, rinse cautiously with water for several minutes. Continue rinsing. Seek immediate medical attention.

### Ingestion:

If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

### Information for Doctor

Treat symptomatically. Wet concrete exposure to skin or eye may result in corrosive caustic burns. Ingestion of significant amounts of concrete is unlikely. Do not induce emesis or perform gastric lavage. Neutralization with acidic agents is not advised because of increased risks of exothermic burns. Water/mineral oil soaks may aid in removing hardened concrete from skin. Ophthalmic opinion should be sought for ocular burns

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Use fire extinguishing methods suitable to surrounding conditions.

**Specific Hazards Arising from the Chemical** None. It is not combustible or explosive.

### Special Protective Equipment and Precautions for Fire Fighters

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures:

Wear Safe Work Australia full protective clothing. Evacuate all non-essential personnel from affected area. Provide adequate ventilation. Avoid generating dust. Do not breathe dust.

### Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

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**Methods and Materials for Containment and Cleaning Up:**

If spillage is dry, shovel into containers. Avoid the generation of dust. Provide adequate ventilation.

If spillage is wet, shovel into containers and then wash down area with water.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:**

Wet concrete is heavy material. Appropriate control of manual handling risk is required when barrowing, shovelling or carrying quantities of wet concrete. Where concrete is being pumped specific Safe Work Methods should be developed and followed.

**Conditions for Safe Storage:**

Wet premixed concrete has a limited life after batching and will set hard. The rate of setting depends on the ambient conditions and amount of agitation. May be stored for very short periods of time (less than 20 minutes) in self-cleansing hoppers with sides at an angle of at least 45° to the horizontal.

Protect from extremes of temperature. 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 failure of the structure being constructed. Keep away from acids and sugars and solutions of either. They will also cause serious degradation of the quality of the material.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Standards (Safe Work Australia):**
**14808-60-7 Quartz (SiO<sub>2</sub>)**

NES	0.1 mg/m <sup>3</sup> respirable dust
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**65997-15-1 Cement, portland, chemicals**

NES	10 mg/m <sup>3</sup>
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**1333-82-0 chromium (VI) trioxide**

NES	0.05 mg/m <sup>3</sup> as Cr
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**Engineering Controls:**

Maintain air concentration below occupational exposure standards, providing adequate ventilation.

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

**Personal Protective Equipment (PPE):**
**Respiratory Protection:**

In dusty environment use a respirator fitted with a filter mask such as a Class P1 or P2. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Protective gloves and clothing and impervious boots. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 for more information.

**Eye and Face Protection:**

Safety glasses with top and side shields or goggles. See Australian Standards AS/NZS 1336 and 1337 for more information.

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## 9 . PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Pre-mixed concrete is a plastic mixture of water, cementitious materials and aggregates. Its plasticity 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. If special concretes with pigments are used the colour may range from near white to any other colour.
<b>Form:</b>	Like plastic
<b>Colour:</b>	Grey
<b>Odour:</b>	Some added ingredients used in concrete may create a smell of ammonia.
<b>Odour Threshold:</b>	Not determined.
<b>pH-Value:</b>	>7
<b>Melting point/Melting range:</b>	>1200 °C
<b>Initial Boiling Point/Boiling Range:</b>	Not determined.
<b>Flash Point:</b>	Not applicable.
<b>Flammability:</b>	Not applicable.
<b>Auto-ignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	Not determined.
<b>Explosion Limits:</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Vapour Pressure:</b>	No information available
<b>Relative Density:</b>	2.5
<b>Vapour Density:</b>	Not applicable.
<b>Evaporation Rate:</b>	Not applicable.
<b>Solubility in Water:</b>	Not soluble in water. Reacts on mixing with water forming an alkaline (caustic) solution (pH >11)

## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** Extremes of temperature, water.

**Incompatible Materials:** Acids, sugars and their solutions.

**Hazardous Decomposition Products:** None known.

## 11 . TOXICOLOGICAL INFORMATION

### Toxicity:

#### Acute Health Effects

##### Inhalation:

Breathing dust may cause nose, throat lung or mucous membrane irritation, including choking, depending on the degree of exposure. Inhalation of high levels of dust can cause chemical burns to the nose, throat and lungs.

This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease.

##### Skin:

Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort.

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Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking.

Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion.

**Eye:**

Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness.

**Ingestion:**

Harmful if swallowed. Unlikely in normal use in the industrial situation. Do not ingest concrete. Although ingestion of small quantities of concrete is not known to be harmful, large quantities can cause chemical burns in the mouth, throat, stomach, and digestive tract.

**Skin Corrosion / Irritation:** Harmful in contact with skin.

**Serious Eye Damage / Irritation:** Causes serious eye irritation.

**Respiratory or Skin Sensitisation:**

May cause an allergic skin reaction.

Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete.

**Germ Cell Mutagenicity:** Chromium (VI) trioxide is classified by Safe Work Australia as Mutagen Category 2.

**Carcinogenicity:**

Concrete is not listed as a carcinogen by IARC. However, concrete contains trace amounts of crystalline silica and hexavalent chromium which are classified by IARC as known human carcinogens.

Silica dust, crystalline, in the form of quartz or cristobalite and chromium (VI) compounds are classified by IARC as Group 1 - Carcinogenic to humans

Chromium (VI) trioxide is classified by Safe Work Australia as Carcinogen Category 1.

**Reproductive Toxicity:**

Chromium (VI) trioxide is classified by Safe Work Australia as Toxic to Reproduction Category 3.

**Specific Target Organ Toxicity (STOT) - Single Exposure:** Not expected to be a hazard.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

May cause damage to respiratory system and skin through prolonged or repeated exposure.

**Aspiration Hazard:** Not expected to be a hazard.

**Chronic Health Effects:**

Repeated contact causes irritation and drying of the skin and can result in skin reddening and skin rash (dermatitis) which can become persistent. Person who are allergic to chromium may develop and allergic dermatitis.

Repeated inhalation of dust containing crystalline silica may cause inflammation of lining tissues of the respiratory system and result in diseases such as bronchitis, silicosis (scarring of the lung) and may increase the risk of scleroderma (a disease affecting the connective tissues of the skin, joints, blood vessels and internal organs).

**Existing Conditions Aggravated by Exposure:**

Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** Product forms an alkaline slurry when mixed with water.

**Aquatic toxicity:** No further relevant information available.

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**Persistence and Degradability:** Product is persistent and would have a low degradability.**Bioaccumulative Potential:** No further relevant information available.**Mobility in Soil:** A low mobility would be expected in a landfill situation.

### 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

### 14 . TRANSPORT INFORMATION

**UN Number****ADG, IMDG, IATA** Void**Proper Shipping Name****ADG, IMDG, IATA** Void**Dangerous Goods Class****ADG Class:** Void**Packing Group:****ADG, IMDG, IATA** Void**Marine pollutant:** No

### 15 . REGULATORY INFORMATION

**Australian Inventory of Chemical Substances:**14808-60-7 Quartz (SiO<sub>2</sub>)

65997-15-1 Cement, portland, chemicals

7732-18-5 Water

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 5

### 16 . OTHER INFORMATION

**Creation Date:** 02.04.2013**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

**Disclaimer**

This MSDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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determinations as to the suitability of the information provided to the particular circumstances in which the product is used.