

# Safety Data Sheet

## SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Details:** Hanson Construction Materials Pty Ltd  
ABN 90 009 679 734  
**Address** Level 10, 35 Clarence street  
Sydney 2000  
**Tel/Fax** Tel: +61 2 9323 4000 Fax: +61 2 9323 4500  
**Emergency** 1800 882 478  
**Contact No**

### Product:

**CONCRETE, PREMIXED CONCRETE**  
**Other Names/Synonyms** Ready-mixed concrete, Grout, Mortar , Sure-Set®, Easycrete®, Coremasta®, Liquifill®, Imagecrete®  
**Use** Premixed concrete is used for a wide variety of building and construction applications  
**Other Information** Plastic concrete begins to harden about one hour after delivery and is quite hard within eight hours. The rate of setting depends on ambient conditions (temperature, wind and humidity) and the concentration of cementitious ingredients

## SECTION 2: HAZARDS IDENTIFICATION

**HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA  
NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA**

### Classification of the substance or mixture

#### GHS classifications

Skin Corrosion Category 1  
Serious Eye Damage – Category 1  
Skin Sensitisation Category 1  
Specific Target Organ Toxicity (Repeated Exposure) Category 2

### Label elements

**Signal word WARNING Pictograms**



### Hazard Statement(s)

H302 – Harmful if swallowed  
P280 – Wear protective gloves/clothing/eye protection.  
H314 – Causes severe skin burns and eye damage  
H317 – May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H373 – May cause damage to lungs by inhalation (dust from dried product)

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**Prevention Statement(s)**

- P260 - Do not breathe dust.
- P264 – Wash 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
- P280 - Wear protective gloves/ protective clothing.

**Response Statement(s)**

- P301 + P330 – If swallowed, rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 – If on skin, immediately remove all contaminated clothing. Rinse skin with water.
- P305 + P351 + P338 – If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
- P312 – Call a Poison Centre or doctor if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P333 + P313 – If skin irritation or rash occurs, get medical advice/attention.
- P363 – Wash contaminated clothing before reuse.

**Storage Statement(s)**

None Allocated

**Disposal Statement(s)**

- P501 Dispose of contents/container in accordance with relevant regulations.

**Other Hazards**

- This product may contain crystalline silica. Crystalline silica dust is classified as Hazardous.
- The product, when it solidifies as supplied, is classified as non-hazardous.
- Dust created when the product is cut, abraded, or crushed may contain crystalline silica some of which may be respirable (particles small enough to go into the deep parts of the lung when breathed in).**
- A proportion of the fine dust in/on the supplied product may be respirable crystalline silica.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

All significant constituents are listed below:

**Major Ingredients**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
<b>Sand</b>	14808-60-7	20 – 85 %
Containing Crystalline Silica (Quartz)		
<b>Crushed Stone, Gravel or Blast Furnace Slag.</b>	NA	20 – 85 %
<b>Portland cement</b>	65997-15-1	10 – 60 %
Chromium VI	1333-82-0	2-20 ppm
<b>Water</b>	7732-18-5	0 - 20 %

**Other ingredients may be added:**

Blast Furnace Slag or Fly Ash Pozzolans		0-20%
Pigments: (metallic oxide colours)		0-10%
Silica Fume (amorphous silica)	7699-41-4	0-10%
Chemical Admixtures:		2-10%
Polystyrene Balls:	9003-53-6	0-60% by volume
Polypropylene Fibres		0-10%
Steel Fibres		<b>0-10%</b>

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**Note:**

- Chromium VI is a trace impurity in Portland Cement.
- Portland Cement, Sand, Crushed stone, Gravel, Blast Furnace Slag and Fly Ash may contain crystalline silica (quartz). Depending on the source of the material for the above ingredients. The crystalline silica content of the final product can vary from product to product.
- Cementitious additives may contain traces of metals

## SECTION 4: FIRST AID MEASURES

Swallowed	Rinse mouth and lips with water. Do not induce vomiting. If symptoms persist, seek medical attention
Eye	Flush thoroughly with flowing water, while holding eyelids open, for 15 minutes to remove all traces. If symptoms such as irritation or redness persist, seek medical attention
Skin	Remove heavily contaminated clothing. 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
Inhaled	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have a qualified person give oxygen through a face mask if breathing is difficult. If irritation persists seek medical attention

**First Aid Facilities** Eye wash and normal washroom facilities

**Advice to Doctor:** Treat symptomatically or consult a Poisons Information Centre

## SECTION 5: FIRE FIGHTING MEASURES

Flammability:	Not flammable or combustible
Hazards from combustion products:	None
Suitable extinguishing media:	Not applicable
Special protective precautions and equipment for fire fighters:	None
Hazchem code:	None allocated

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Spills:

- Dust is best cleaned up by vacuum device to avoid making dust airborne. Wetting down before sweeping up dust may be a useful control measure
- Recommendations on Exposure Controls / Personal Protection (see Section 8 below) should be followed during spill clean-up if conditions are dusty
- Plastic concrete;
  - Recover spilled material by shovelling into containers and using mechanical sweepers, but avoid generating dust. Prevent spillage or wash down water from entering sewers drains, stormwater and watercourses
  - If contamination of drains or watercourses has occurred, advise the relevant state environment protection agency and the company

### Disposal:

- May be disposed of as inert landfill in accordance with local authority regulations

## SECTION 7: HANDLING AND STORAGE

Storage Precautions	No special storage requirements
Transport	Not classified as a Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (6th Edition)
Handling	Prevent all contact with skin. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet
Proper Shipping Name	None Allocated

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## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

The following applies to dust from this product:

### Exposure Limits:

Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia.

- Exposure to dust should be kept as low as practicable, and below the following NES:-
- Crystalline silica (quartz): 0.05 mg/m<sup>3</sup> TWA (time-weighted average) as respirable dust
- Total dust (of any type, or particle size): 10 mg/m<sup>3</sup> TWA
- Chromium VI: 0.05 mg/m<sup>3</sup> -sensitiser

All occupational exposures to atmospheric contaminants should be kept to as low as reasonably practicable and in all cases to below the Workplace Exposure Standard (WES).

TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

### Engineering Controls:

- All work should be carried out in such a way as to minimise dust generation, and exposure to dust.
- Mechanical ventilation: Dust extraction and collection may be used, if necessary, to control airborne dust levels
- Work areas should be cleaned regularly

### Personal Protection:

#### Skin:

Prevent all contact with skin

When handling wet concrete personnel should wear loose comfortable clothing and impervious boots, suitable protective/impervious gloves

Contact with plastic concrete will cause severe irritation and possible chemical burns, cement dermatitis and dry skin

- Portland cement is alkaline in nature so plastic concrete and mortars are strongly alkaline (pH of 12 -13). Strong alkalines, like strong acids, are harmful or caustic to the skin. This may produce alkali burns
- Portland cement is hygroscopic - it absorbs water. Plastic concrete needs water to harden. It will draw water away from any other material in contacts, including skin. This will irritate and dry the skin

Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet

Remove all contaminated clothing. Wash gently and thoroughly with tepid water and non-abrasive soap. If irritation develops and persists seek medical attention. Wash hands before eating, or smoking

#### Eyes

Safety glasses with side shields or safety goggles (AS/NZ 1336) or a face shield should be worn Plastic concrete will cause severe irritation in contact with the eyes, which will result in redness, stinging and lachrymation. Alkaline properties may produce severe alkali burns or serious eye damage.

Dry concrete dust may cause mechanical irritation resulting in redness and lachrymation

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**Respiratory:** Where engineering and handling controls are not enough to minimise exposure to total dust and to respirable crystalline silica, personal respiratory protection may be required. The type of respiratory protection required depends primarily on the concentration of the respirable crystalline silica dust in the air, and the frequency and length of exposure time. Amount of exertion required during the work, and personal comfort are other considerations in choice of respirator. A suitable P1 or P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient for many situations, but where high levels of dust are encountered, more efficient cartridge type or powered respirators or supplied-air helmets or suits may be necessary. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly. For dust levels approaching or exceeding the NES (see above) a more effective particulate respirator providing a greater protection factor should be worn. Procedures for effective use of respirators should be applied and supervised. Do not contaminate the home environment with dusty work clothes and shoes. Do not shake out work clothes before laundering.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<p><b>Appearance</b></p>	A moldable generally grey mixture which will set and harden to become a stable solid. Colour may vary from near white to any other colour
<p><b>Odour</b></p>	Some added ingredients used in concrete may create a smell of ammonia
<p><b>Ph</b></p>	>7.0 dry state. >10 in wet plastic state
<p><b>Vapour Pressure</b></p>	Not determined
<p><b>Vapour Density</b></p>	Not determined
<p><b>Boiling Point/range</b></p>	Not determined
<p><b>Freezing/melting point</b></p>	Melting point >1200 0C
<p><b>Solubility</b></p>	Not soluble. Can react on mixing with water forming an alkaline solution with Ph >11
<p><b>Specific gravity</b></p>	2.4 to 2.5 (water=1)
<p><b>Flash Point</b></p>	Not applicable
<p><b>Upper and lower flammability Limits</b></p>	Not applicable
<p><b>Ignition Temp</b></p>	Not applicable
<p><b>Particle Size</b></p>	A <i>proportion</i> of the dust may be respirable (below 10 microns) and if it becomes airborne constitutes an exposure if inhaled.

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## SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Chemically Stable
Condition to avoid:	Keep away from water.Dust generation.
Incompatible materials:	None
Hazardous Decomposition: Products	None
Hazardous Reactions:	None

Crystalline silica is stable, compatible with other materials, does not polymerise, and will not decompose into hazardous by-products.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Health Effects

#### Acute (short term)-

- Swallowed** Unlikely in normal use in industrial situation .Concrete is abrasive and mildly corrosive. Swallowing either plastic or hardened concrete will result in abdominal discomfort. Symptoms can include nausea, stomach cramps and vomiting
- Eye** Plastic concrete will cause severe irritation in contact with the eyes, which will result in redness, stinging and lachrymation. Alkaline properties may produce severe alkali burns or serious eye damage.  
Dry concrete dust may cause mechanical irritation resulting in redness and lachrymation
- Skin** Contact with plastic concrete will cause severe irritation and possible chemical burns, cement dermatitis and dry skin
- Portland cement is alkaline in nature so plastic concrete and mortars are strongly alkaline (pH of 12 -13). Strong alkalines, like strong acids, are harmful or caustic to the skin. This may produce alkali burns
  - Portland cement is hygroscopic - it absorbs water. Plastic concrete needs water to harden. It will draw water away from any other material in contacts, including skin. This will irritate and dry the skin
- Inhaled** Sprayed plastic concrete droplets and dry concrete dust may irritate the nose, throat and respiratory tract causing coughing, sneezing and breathing difficulties. Pre-existing upper respiratory and lung diseases included asthma and bronchitis may be aggravated
- Chronic (long term) -**
- Eyes** In dust form may cause inflammation of the cornea
- Skin** Repeated or prolonged skin contact with plastic concrete can dry the skin and cause alkali burns due to the caustic nature of the product. This condition is described as irritant contact dermatitis. Some individuals may experience allergic dermatitis because there are trace amounts of water soluble hexavalent chromium salts (Chromium VI) present in Portland Cement (0 - 20ppm). Once a person is sensitised to water soluble chromates any further skin exposure to chromates will bring back the symptoms

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## Inhaled

Plastic concrete is not considered a chronic inhalation hazard. Repeated exposure to the dust may result in increased nasal and respiratory secretions and coughing. Inflammation of lining tissue of the respiratory system may follow repeated exposure to high levels of dust with increased risk of bronchitis and pneumonia. Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the NES carries the risk of causing serious and irreversible lung disease, including bronchitis, and silicosis (scarring of the lung), including acute and/ or accelerated silicosis. It may also increase the risk of other irreversible and serious disorders including scleroderma (a disease affecting the skin, joints, blood vessels and internal organs) and other auto-immune disorders. Inhalation of dust, including crystalline silica dust, is considered by medical authorities to increase the risk of lung disease due to tobacco smoking.

The product contains a proportion of respirable free crystalline silica in the quartz component. Crystalline silica (inhaled in the form of quartz or cristobalite from occupational sources) has been classified by The International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1).

## Other Information

Inhalation of airborne particles from other sources in the work environment, including those from cigarette smoke, may increase the risk of respiratory diseases. It is recommended that all storage and work areas should be smoke free zones and that other airborne contaminants should be kept to a minimum.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Product forms an alkaline slurry when mixed with water.

### Persistence and Degradability

Product is persistent and is non-degradable.

### Mobility

Low mobility would be expected in a landfill situation.

### Dust

Crystalline silica is non-toxic to aquatic and terrestrial organisms; is not biodegradable; is insoluble and is expected to have low mobility in landfill.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Spills and Leaks

- Plastic concrete; Recover spilled material by shovelling into containers and using mechanical sweepers, but avoid generating dust. Prevent spillage or wash down water from entering sewers, drains, stormwater and watercourses.
- If contamination of drains or watercourses has occurred, advise the relevant state environment protection agency and the company.

### Disposal

- May be disposed of as inert landfill in accordance with local authority regulations. Measures should be taken to prevent dust generation during disposal and exposure and personal precautions should be observed (see above).



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## SECTION 14: TRANSPORT INFORMATION

<b>UN Number</b>	None Allocated
<b>UN proper Shipping name</b>	None Allocated
<b>Class and subsidiary risk</b>	None Allocated
<b>Packing Group</b>	None Allocated
<b>Hazchem Code</b>	None Allocated
<b>Special precautions for user</b>	See Above
<b>DG class</b>	None Allocated

## SECTION 15: REGULATORY INFORMATION

### Classification

- Hazardous according to ASCC/NOHSC criteria and not classified as Dangerous Goods
  
- Exposures by inhalation to high levels of dust may be regulated under the Hazardous Substances Regulations (State and Territory) as they are applicable to Respirable Crystalline Silica, requiring exposure assessment, and control of inhalation exposure below the NES
  
- Persons who have potential for exposure above the NES may be required by Regulations to have periodic health surveillance including Chest X-ray (see relevant State Government Regulations and SWA (ASCC/NOHSC documentation))

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## SECTION 16: OTHER INFORMATION

**Emergency Contact No (All hours)**  
1800 882 478

**Emergency Contact No (Office Hours)**

**Contact** For further information contact the Risk Manager at your nearest Hanson office;

**New South Wales & ACT**

Level 18, 2-12 Macquarie St  
Parramatta, NSW, 2150  
Ph: (02) 9354 2600  
Fax: (02) 9354 2699

**Tasmania**

114 Gormandston Road  
Moonah, TAS, 7009  
Ph: (03) 6272 6796  
Fax: (03) 6272 1714

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Marleston, SA, 5033  
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Fax: (08) 8292 5995

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Winnellie, NT, 5789  
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Fax: (08) 8984 3717

**Victoria**

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Doncaster, VIC, 3108  
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Fax: (03) 9274 3794

**Queensland**

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Brisbane Airport 4008  
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**Authorised by: Paul Johnston**

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**END OF SDS**