

Revised Date 20/7/2016

## 1. Identification

**Product Name:** Atlas Concrete - Ready-Mixed Concrete

**Other Name(s):** “plastic”, “wet”, “fresh-state” or “unhardened” concrete

**Proper Shipping Name:** Not applicable **UN Number:** Not applicable \*

**Recommended Use:** Ready mixed 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

**Manufacturer:**

<b>Name:</b> Atlas Concrete (New Zealand) Ltd <b>Address:</b> Head Office 11 Wairau Rd PO Box 33 244 Takapuna, Auckland	<b>Phone:</b> 09 486 3333 (0700-1630 Mon to Fri only) <b>Fax:</b> 09 488 7953 <b>Email:</b> Sales@AtlasConcrete.co.nz <b>Website:</b> www.AtlasConcrete.co.nz
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**Emergency Contacts:** Emergency Services (Fire, Ambulance, Police) – Dial 111  
 National Poisons Information Centre - 0800 764 766 (0800 POISON)

## 2. Hazard Identification

### Statement of Hazardous Nature:

Wet concrete is considered a manufactured article for the purposes of the Hazardous Substances and New Organisms

Act (HSNO Act), and is therefore not a Hazardous Substance under that Act. Notwithstanding that, Atlas Concrete Ready-Mixed Concrete does have hazardous properties.

Not classified as a Dangerous Good according to NZS 5433

<b>Hazard Statements:</b> May cause an allergic skin reaction Harmful in contact with skin Causes serious eye damage Harmful if swallowed	<b>Prevention Statements:</b> Wear protective gloves/clothing and eye/face protection. Wash hands / exposed skin thoroughly after handling Do not empty into drains.
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## 3. Composition & Information on Ingredients

Ingredient	CAS Number	Concentration (%)
Cement		10 - 60%

Refer to the Safety Data Sheet for the particular cement used in the concrete formulation

Aggregate - Sand, crushed stone, gravel <i>May contain crystalline silica (quartz)</i>	14808-60-7	40 – 85%
Water	7732-18-5	<20%
Other Ingredients may be added <i>Fly ash</i> <i>Metallic oxide pigments</i> <i>Polypropylene</i> <i>Steel</i> <i>Admixtures, such as water reducers, set retarders, set accelerators, plastiscers, waterproofing agents (refer AS 1478 and the relevant SDS sheets for the product )</i>	68131-74-8	<20% <4% <10% <10% <1%

#### 4. First Aid Measures

<p>New Zealand Poisons &amp; Hazardous Chemicals National Information Centre</p> <p>phone 0800 POISON – 0800 764 766</p> <p><b>First Aid Facilities:</b> Eye wash station. Wash facilities <b>Skin:</b> Remove/take off immediately heavily contaminated clothing. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent irritation or burning of the skin Wash contaminated clothing before re-use <b>Eyes:</b> IF IN EYES rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.</p>	<p>If wet concrete is splashed in the eye immediately call a POISON CENTRE or doctor/physician. If symptoms such as irritation or redness persist, seek medical attention.</p> <p><b>Ingestion:</b> IF SWALLOWED rinse mouth and lips with water, do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician</p> <p><b>Inhalation:</b> Not an expected route of exposure</p> <p><b>Advice to Doctor:</b> Treat symptomatically. Wet concrete burns 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 the skin. Ophthalmological opinion should be sought for ocular burns.</p>
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#### 5. Fire Fighting Measures

<p><b>Flammability:</b> Non-combustible, non-explosive</p> <p><b>Extinguishing media:</b> Appropriate for surrounding materials. Prevent contamination of drains or water ways.</p> <p><b>Hazardous Combustion products:</b> None</p>	<p><b>Flash point:</b> Not applicable</p> <p><b>Flammability limits:</b> Not applicable</p> <p><b>Auto-ignition temperature:</b> Not applicable</p> <p><b>HAZCHEM Code:</b> None allocated</p>
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#### 6. Accidental Release Measures

Protect yourself and others from harm. Wear appropriate protective equipment (see section 8)

**Spills:** If spillage is wet, shovel into containers and then wash down area with water but prevent run-off from entering storm water and sewer drains and watercourses. If spillage is dry and friable, shovel into containers. Avoid generating dust. If spillage has hardened, refer disposal. Recommendations on exposure control and personal protection should be followed during spill clean-up

#### 7. Handling & Storage

<p><b>Safe Handling</b> Wet concrete is a heavy material, and appropriate control of manual handling risk is required when barrowing, shovelling or carrying quantities of wet concrete. Wash hands / exposed skin thoroughly after handling.</p> <p><b>Storage</b> Wet concrete has a limited life after batching and will set hard. The rate of setting depends on the ambient conditions, amount of agitation, and the amount and</p>	<p>type of any chemical admixtures used. May be stored for very short periods of time (less than twenty minutes) in self-cleansing hoppers with sides at an angle of at least 45° to the horizontal. 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 failure of the structure being constructed.</p>
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### 8. Exposure Controls & Personal Protection

Exposure Standards <b>Workplace Exposure Standards (WES):</b> None assigned for wet concrete	<b>Tolerable Exposure Limit (TEL):</b> Not applicable
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#### Engineering Controls

**Ventilation:** Local mechanical ventilation may be required in areas where spray droplets from wet concrete could escape into the work environment.

#### Personal Protection (PPE)

Wear protective gloves/clothing and eye/face protection.  
 Contaminated work clothing should not be allowed out of the workplace

**Eyes/Face:** Avoid contact with eyes. Splash resistant Safety Glasses with side shields, safety goggles (AS/NZS 1337), or a face-shield should be worn.

**Skin:** Minimise contact with concrete materials. When handling wet concrete, mortar or grout personnel should wear comfortable protective clothing and impervious boots, (AS/NZS 4501), suitable impervious gloves such as PVC (AS/NZS 2161). 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 of face and lips and ingestion, wash hands before eating, or smoking.

### 9. Physical & Chemical Properties

**Appearance:** Ready Mixed Concrete is a plastic mixture of water, cement materials, and aggregates. The latter are usually sand and stone or gravel. 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.

<p><b>Odour:</b> Some added ingredients used in concrete may create a smell of ammonia.</p> <p><b>pH:</b> alkaline, &gt;11</p> <p><b>Vapour pressure:</b> not applicable</p> <p><b>Vapour density:</b> not applicable</p> <p><b>Boiling point:</b> not determined</p> <p><b>Melting point:</b> &gt;1200°C</p> <p><b>Specific gravity:</b> (H<sub>2</sub>O=1) 2.5 (will vary depending on aggregates used).</p>	<p><b>Solubility (water):</b> Not soluble or slightly soluble. Reacts on mixing with water forming an alkaline (caustic) solution (pH &gt;11)</p> <p><b>Solubility (other):</b> Not applicable</p> <p><b>Flash point:</b> Not applicable</p> <p><b>Flammability limits:</b> Not applicable</p> <p><b>Evaporation rate:</b> Not applicable</p>
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### 10. Stability & Reactivity

<p><b>Stability:</b> Concrete is a stable substance, compatible with most other building materials.</p> <p><b>Conditions to avoid:</b> Keep away from waterways and drains.</p>	<p><b>Incompatibility / Materials to avoid:</b> None known</p> <p><b>Hazardous decomposition products:</b> None</p> <p><b>Hazardous polymerisation:</b> Does not occur</p>
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### 11. Toxicological Information

Health Effects / Symptoms of Exposure

#### Acute

**Skin:** Irritating, abrasive and drying to the skin. May cause alkaline (caustic) burns if direct contact is made with wet concrete for any length of time, leading to partial thickness (second degree) or even full thickness (third degree) burns.

**Eyes:** Irritating and may cause alkaline (caustic) burns to the eyes. Splash of wet concrete into the eye can cause serious and rapid corrosive burning, with potential for permanent loss of vision.

**Ingestion:** Unlikely in normal use in the industrial situation. Abrasive and highly irritant (burning) to mouth and throat. May cause nausea, and stomach cramps.

**Inhalation:** Not an expected route of exposure

Chronic

**Eyes:** In dust form it may cause inflammation of the cornea

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

Toxicological Data

Not available

**12. Ecological Information**

Product forms an alkaline slurry when mixed with water. Measures should be taken to avoid accidental release to the environment. Do not allow to enter drains or waterways.

**Environmental Exposure Limit (EEL):** None set

**Persistence in environment:** Product is persistent

**Biodegradability:** Low degradability

**Mobility:** A low mobility would be expected in a landfill situation

Ecotoxicological Data

Not available

**13. Disposal Considerations**

Wet concrete should be allowed to harden in manageable portions. Local authorities may be able to accept hardened concrete as cleanfill.

Ready Mixed Concrete can be treated as a common waste for disposal or dumped into a landfill site in accordance with local authority guidelines. Keep out of storm water and sewer drains.

Measures should be taken to prevent dust generation during disposal and exposure and personal precautions should be observed

**14. Transport Information**

Not classified as a Dangerous Good according to NZS 5433:2007

Transport equipment should be strong enough to contain a fluid with an effective specific gravity of 2.5.

<p><b>Proper Shipping Name:</b> None allocated</p> <p><b>UN Number:</b> None allocated</p> <p><b>DG Class:</b> None allocated</p> <p><b>Subsidiary Risk:</b> None allocated</p>	<p><b>Packing Group:</b> None allocated</p> <p><b>EPG:</b> None allocated</p> <p><b>Marine Pollutant:</b> No</p>
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**15. Regulatory Information**

HSNO Approval

Wet concrete is considered a manufactured article for the purposes of the Hazardous Substances and New Organisms Act (HSNO Act), and is therefore not a Hazardous Substance under that Act.

**16. Other Information**

**Abbreviations / Terminology:**

<p>AS Australian Standard</p> <p>AS 1478 Chemical Admixtures for Concrete</p> <p>AS/NZS Joint Australian New Zealand Standard</p> <p>AS/NZS 1337 Personal eye-protection</p> <p>AS/NZS 2161 Occupational protective gloves</p> <p>AS/NZS 4501 Occupational protective clothing</p> <p>NZS New Zealand Standard</p>	<p>NZS 5433 Transport of Dangerous Goods on Land</p> <p>CAS# Chemical Abstract Service number (a unique identifier for chemicals)</p> <p>HSNO (New Zealand) Hazardous Substances and New Organisms Act</p> <p>WES Workplace Exposure Standard</p> <p>TEL Tolerable Exposure Limit</p>
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## Safety Data Sheet – Atlas Concrete Ready-Mixed Concrete



Prepared with reference to: *Preparation of Safety Data Sheets, Approved Code of Practice under the HSNO Act [COP 8-1]*, New Zealand Chemical Industry Council Sep 2006

**Current Version:** Dated 20/7/2016

**Revision Information:**

MSDS may be revised from time to time, please ensure you have a current copy.

Previous revision dated: 20/7/2016 *General revision & update*

**Disclaimer:**

This material safety data sheet attempts to describe as accurately as possible the potential exposures associated with

normal use of wet concrete. Health and safety precautions in the data sheet may not be adequate for all individuals and/or situations. Users have the responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations.

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END OF MSDS