SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF SUBSTANCE AND SUPPLIER

COMPANY DETAILS

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EMERGENCY INFORMATION

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Product

Product Name:	**Ready Mixed Concrete**
Other Names:	Pre-Mix Concrete, Grout, Mortar, Shotcrete, Kerb Mix, Blockfill, Easyfill, Self Compacting Concrete
HSNO approval:	**HSR002544**
Approval Description:	Construction Products (Subsidiary Hazard) Group Standard 2006
UN number:	Not allocated
Proper Shipping Name:	N/A
Packaging Group:	N/A

IMPORTANT NOTICE: This Material Safety Data Sheet (SDS) applies to wet concrete in its fresh, liquid, and mobile state only. Hazards associated with cured hardened concrete are not covered by this SDS.

SECTION 2: HAZARDS IDENTIFICATION

ERMA Classification: Wet concrete is classed as intermediary product under the 'Group Standards for Construction Products'.

ERMA Approval Code: HSR0002544

HSNO Classification:	
6.3A	H315 – Causes skin irritation
8.3A	H318 – Causes serious eye damage
9.1D	H402 - Harmful to aquatic life.

Note – Concrete is considered irritating to the skin under the classification system; however, if wet concrete is left in contact with the skin for a prolonged period burns may result.

Symbols

DANGER

Other Classifications

There are no other classifications that are known to apply

Precautionary Statements

Keep out of reach of children.
Do not eat or drink while using this product.
Wash concrete off skin immediately.
Wear protective gloves and eye protection.
Remove contaminated clothing and wash before reuse.
Avoid release to the environment.

Further precautionary statements can be found in Section 4 – First Aid

SECTION 3: COMPOSITION

Component	CAS/Identification	Class of ingredients	Conc (%)
Cement	65997-15-1	8.3A, 6.3A, 6.7A, 6.9B	5 -25
Aggregates (May include crystalline silica)	mixture	6.7A, 6.9B	10 – 90
Chemical additives	mixture	mixture	0 - 5
Water	7732-18-15	Non hazardous	30 - 50

May contain one or more of the following ingredients

Component	CAS/Identification	Class of ingredients	Conc (%)
Metal Oxides	mixture	mixture	3 - 6
Fly Ash	68131-74-8	6.1E, 6.4A, 6.7A, 6.9A, 8.2C, 9.1D	0 - 5
Crystalline Silica	14808-60-7	mixture	0 - 5
Calcium Sulphate	26499-65-3	Non hazardous	0 - 5

Note:

Cements additives and aggregate may contain 0.1% - 60% crystalline silica (CAS No. 14808-60-7) depending on the proportion and crystalline silica content of the ingredients. Wet stage concrete poses no silica exposure risk or hazard.

SECTION 4: FIRST AID MEASURES

General Information

Ready Mixed Concrete is highly alkaline and will burn and/or cause rapid drying of the skin causing injury from minor irritation to serious burns. Seek medical attention if symptoms occur.

Recommended First Aid Facilities Ready access to clean running water and access to eyewash recommended

Exposure

EYES: Will burn - Irritating and abrasive to eyes.
Flush eyes including under eye lids with plenty of water for 15 minutes.
Remove contact lenses. Seek medical attention.

SKIN: Will burn and dry out skin, causing irritation or burns.
Remove any clothing or footwear contaminated with concrete.
Rinse with plenty of soapy water; if a rash or irritation continues, seek medical attention.
Thoroughly wash all clothing and/or footwear before reusing.

SWALLOWED: Irritating to gastrointestinal tract.
Do not induce vomiting.
Drink water or milk.
Seek medical attention.

INHALED: N/A

SECTION 5: FIRE FIGHTING

Flammability:	Not Flammable.
Flash Point:	N/A
Lower Explosive Limit:	N/A
Upper Explosive Limit:	N/A
Auto Ignition Temperature:	N/A
Sensitivity to Static Discharge:	N/A
Sensitivity to Impact:	N/A
Extinguishing Media:	N/A
Special Fire-Fighting Procedures:	Contaminated water will be strongly alkaline
Hazardous Combustion Products:	N/A
Unusual Fire and Explosion Hazards:	N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills: Do not dilute or attempt to clean spills with water.
Contain to prevent entry to stormwater, sewers, or waterways.
If safe to do so allow the concrete to set before removal.

Emergency Procedures If the spill poses a risk to people or the environment, alert the fire brigade and advise.
Wear protective equipment to prevent skin and eye exposure.
Contain spill.
If the spill has entered a sensitive environment such as a stormwater or waterway advise the applicable Regional Council.

Clean–up Once set, small spills may be disposed as clean fill, large spills may require specialised equipment such as road sweepers or loaders to remove.
Once the concrete has set avoid generating dust and use respiratory protection during removal.
Any discharge during clean up should comply with Resource consent requirements and any relevant District or Regional Council rules.

Disposal: May be buried in an approved land disposal facility in accordance with local regulations.
Does not require special transport arrangements.

Precautions Dust may form an irritating atmosphere.
Contaminated water is strongly alkaline.
Do not allow product or contaminated water to enter a sensitive environment.
Wear appropriate eye, skin, and dust protective equipment.

SECTION 7: HANDLING AND STORAGE

Storage: Material stored in mixer trucks prior to use. Keep agitated until discharged.

Handling: Wear personal protective clothing when handling (see Section 8). Avoid accidental release to the environment.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established for this product.
The general limit of 10mg/m^3 applies for dusts and mists when limits have not been established (NZ Workplace Exposure Standards 2016).

Refer to the applicable SDS for specific exposure levels associated with wet concrete ingredients.

Engineering Controls:

Provide adequate ventilation to ensure mists and aerosols remain at a minimum level.
Do not use aluminum or copper components in batching plant construction.

Eye Protection:

Eye protection should be used when handling this material.

Skin Protection:

Wear full length overalls that fully cover the arms and legs.
Contaminated clothing should be removed to avoid alkaline burns.
Thoroughly wash all clothing before reusing.

Hand Protection:

Wear PVC or other impervious gloves to prevent burns and splashes when handling.
Promptly remove and clean if concrete gets inside the glove.

Foot Protection:

Rubber gumboots are recommended.
Promptly remove and clean if concrete gets inside the footwear.

Respiratory Protection:

Respiratory protection is not usually required unless engineering controls are inadequate for providing sufficient ventilation.
Note: Refer to the appropriate SDS for working with set concrete.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Grey fluid / hydraulic mixture.
Odour:	No distinct odour.
Odour Threshold:	N/A
Physical State:	Solid (Slurry).
pH (as a solid):	N/A
pH (as a liquid):	12 to 13.
Solubility in Water:	N/A
Vapour Pressure:	N/A
Vapour Density:	N/A (i.e.,>1000^{o}C).
Boiling Point:	N/A
Specific Gravity (H_20 = 1.0):	2.2 - 2.5
Melting Point:	N/A
Coeff. Water/Oil Dist.:	N/A
Evaporation Rate:	N/A
Corrosiveness	When wet.

SECTION 10: STABILITY AND REACTIVITY

Stability:
Stable under ambient storage and handling conditions.

Conditions to Avoid:
N/A

Incompatibility:
This product is strongly alkaline and will react with strong acids, ammonium salts, and aluminum metals. Damages organic organisms.

Hazardous Decomposition:
No

Hazardous Reactions:
N/A

SECTION 11: TOXICOLOGICAL INFORMATION

Effects of Acute Exposure:
Wet concrete mixtures can dry the skin, cause alkali burns, and irritate or damage the eyes.
Ingestion can cause irritation of the throat.
Wet concrete mists can cause respiratory irritation.

For toxicological information on dry concrete refer to the appropriate SDS.

Supporting Data	
Oral:	LD_{50} (oral rat) >5000mg/kg.
Dermal:	LD_{50} (oral rat) >5000mg/kg.
Inhaled:	Wet concrete not considered harmful.
Eye:	Corrosive pH>12.
Skin:	Skin irritant.
Sensitisation:	Not considered sensitising.
Mutagenicity:	Not considered a mutagen.
Carcinogenicity:	Wet concrete is not considered a carcinogen.
Systemic:	No data available.
Aggravation of existing conditions:	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Wet concrete has a high pH value and is harmful to aquatic life and vegetation.

Persistence and Degradability: May change pH of water ways for an extended time. Will not degrade.

Mobility: Limited mobility unless diluted.

Bio Accumulative Potential: N/A

SECTION 13: DISPOSAL INFORMATION

Restrictions:
Local council and resource consent conditions may apply including trade waste consents.

Disposal:
May be buried in approved land disposal facility in accordance with local regulations.
Does not require special transport arrangements.

Packaging:
N/A

SECTION 14: TRANSPORT INFORMATION

Not considered a dangerous goods according to NZS 5433

UN number:	N/A	**Proper Shipping Name:**	N/A
Class:	N/A	**Packaging group:**	N/A
Precautions:	N/A	**Hazchem code:**	N/A

SECTION 15: REGULATORY INFORMATION

ERMA Approval Code: HSR0002544

Approved Handler: Not required
Tracking: Not required
Not classified under Agricultural Compounds and Veterinary Medicines Act 1997

Not covered by international agreements.

SECTION 16: OTHER INFORMATION

Date of Issue: 1st February 2020
Version: 5
Revision Due: 2025

This SDS has been prepared in accordance with Hazardous Substances (Safety Data Sheets) Notice 2017.

DISCLAIMER:
The information in this data sheet is to the best of Higgins Concrete's knowledge, representative of the product(s) listed. The composition of natural and processed products do vary, therefore all data contained in this SDS is subject to variation and is intended for guidance only. As conditions of use are beyond Higgins Concrete's control, no liability is implied or accepted for any loss, damage, physical injury, or loss of income sustained from the use of this information or the use of any of Higgins Concrete products.