



BO520 STRUCTURAL MORTAR SAFETY DATA SHEET

Bowers Brothers Concrete Ltd

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier	
Product name	BO520 Structural Mortar
Synonyms	Not available
Other means of identification	Not Available


Relevant identified uses of the substance or mixture and uses advised against	
Relevant identified uses	Use according to the manufacturer's directions

Details of the supplier of the safety data sheet	
Registered company name	Bowers Brothers Concrete Ltd
Address	51 Lorne Street, Morrinsville
Telephone	07 889 6774
Fax	07 889 3177
Website	www.bowersbrothers.co.nz
Email	simon@bowersbrothers.co.nz

Emergency telephone number	
Association / Organisation	NZ POISONS (24 hrs 7 days)
Emergency Telephone numbers	0800 737 363
Other emergency telephone numbers	Not available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for Transport of Dangerous Goods.	
Classification	R37/38, R41, R48/20, R49
Risk Phrases	R37/38 Irritating to respiratory system and skin R41 Risk of Serious Damage to Eyes R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation R49 Carcinogenic Cat. 1 May cause cancer by inhalation
Safety Phrases	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28: After contact with skin, wash immediately with plenty of water and soap.
GHS Label Elements	

Hazard Statements

H315	Causes skin irritation
H317	May cause an allergic reaction
H318	Causes serious eye damage
H371	May causes damage to organs
H413	May cause long lasting effects to aquatic life

Precautionary Statements

Prevention - P290	Do not breath dust/fume/gas/mist/vapours/spray
Response – P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage – P405	Store locked up
Disposal – P501	Dispose of bags in accordance with local regulations

HSNO Classification: Classified as Hazardous according to the criteria in the HS (Minimum degrees of Hazard) Regulations 2001.

Subclass 6.1D	Substances that are acutely toxic - Harmful
Subclass 6.5A	Substances that are respiratory sensitisers
Subclass 6.5B	Substances that are contact sensitisers
Subclass 8.2C	Substances that are corrosive to dermal tissue UN PGIII
Subclass 8.3A	Substances that are corrosive to ocular tissue

Statement of hazardous/dangerous nature	HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:	Yes	
Sand (Crystalline Silica)	14808-60-7	1 – 10%
Portland Cement	65997-15-1	15 – 40%
Calcium Hydroxide	1305-62-0	1 – 5%
Additive to enhance workability	-	0.5-5%

Other ingredients, determined not to be hazardous according to HSNO criteria.

There are no additional ingredients present which, within current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

SECTION 4 FIRST AID MEASURES

Description of First Aid Measures

Eye Contact	Obtain medical attention immediately. Immediately flush eyes with plenty of water. Check for and remove contact lenses. Continue flushing for 15 minutes. Chemical burns must be treated by a Doctor.
Skin Contact	Immediately remove contaminated clothing and footwear. Immediately rinse skin with plenty of water. Obtain medical attention if irritation occurs.
Inhalation	Remove victim to fresh air at rest in a position comfortable for breathing. Immediately obtain medical attention.
Ingestion	Do not induce vomiting. Flush mouth with plenty of water and offer water to drink. Never offer anything by mouth to an unconscious person. Get immediate medical attention if adverse health effects persist or are severe.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Skin and Eye Contact	Injury should be irrigated for at least 20 minutes. Saline irrigation should be used.
Inhalation	Oxygen may be required Contact NZ Poisons if large amount inhaled.
Ingestion	Water and milk are the preferred diluents. Contact NZ Poisons if large amount ingested.

SECTION 5 FIRE FIGHTING MEASURES

Product is not considered flammable

Suitable Extinguishing media	All extinguishing media
Special firefighting procedures	Should be worn: Protective Clothing. Goggles. Self-contained breathing equipment Evacuate area downward of fire
Unusual Fire and Explosive Hazards:	Hazardous products of combustion: Oxides of carbon.

SECTION 6 ACCIDENTAL RELEASE MEASURES**Precautions for safe handling**

Personal precautions	Evacuate immediate area. Provide adequate ventilation. Avoid breathing dust. Wear appropriate respirator if ventilation is inadequate. Do not touch or walk through spilled material. Wear appropriate PPE when clearing spill. Shut off all ignition sources.
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.

Large Spills	Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via an approved waste disposal facility.
Small spills	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via an approved waste disposal facility.

SECTION 7 HANDLING AND STORAGE

Handling	<p>Always wear PPE (see section 8) Do not get in eyes or on clothing. Avoid breathing dust. Avoid the creation of dust when handling. Only use where adequate ventilation is present. Two-person lift. Empty containers retain product residue and can be hazardous, do not reuse container.</p>
Storage	<p>Store in original container protected from rain and sunlight and in a well ventilated area away from combustible materials and food. Separate from oxidising materials. Containers that have been opened should be carefully sealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.</p>

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION


Occupation Exposure Limits (OEL)

Ingredient Data

New Zealand Exposure Standards (WES)	Portland Cement	Portland Cement	10mg/m3	Respirable fraction
New Zealand Exposure Standards (WES)	Calcium Hydroxide	Hydrated / Slaked Lime	5 mg/m3	Respirable fraction
New Zealand Exposure Standards (WES)	Crystalline Silica (Quartz) SiO2	Silica	0.1mg/m3	Respirable fraction

Source	Ingredient	Material Name	TWA	Notes
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Exposure Controls

Appropriate engineering controls	<p>Only use where adequate ventilation is present. Avoid the creation of dust when handling. If dust is generated use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any statutory limits. Use explosion-proof ventilation equipment.</p>
Personal Protection	
Eye Protection	Safety glasses with side shields
Hand protection	Chemical resistant gloves
Skin Protection	Personal protective equipment for the skin should be selected based on the task being performed and the risks involved.
Environmental exposure controls	Emmissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Recommended material(s)**Protective Gloves**

Glove selection is based on the Forsberg Clothing Performance Index.

Material	CPI
Natural Rubber	A
Natural + Neoprene	A

Respiratory Protection

Type AX-P Filter of sufficient capacity.

Required Minimum Protection Factor	Half-Face Respirator	Full-face respirator	Powered Air respirator
Up to 10 x ES	AX P1 Air line Negative Pressure demand	-	AX PAPR-P1
Up to 50 x ES	Air line continuous flow	AX P2	AX PAPR-P2
Up to 100 x ES	-	AX P3	-
100+ x ES	-	Air line continuous flow	AX PAPR-P3

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Colour	Grey
Odour	None
Solids	100%
Solubility in water	30-50%
pH	12.0 approx.
Melting Point	Not Available
Boiling Point	Not Available
Flash Point	Not Available
Evaporation Rate	Not Available
Flammability (solid, gas)	Not Available
Lower and upper explosive limits	Not Available
Vapour pressure	Not Available
Vapour Density	Not Available
Relative density	2.5-3.0
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Volatility	Not Available
VOC (w/w)	0%

SECTION 10 STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	This product is stable
Possibility of Hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	Reactive or incompatible with the following materials: oxidising materials and acids
Hazardous decomposition	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Product / Ingredient name	Result	Species	Dose	Exposure
Portland Cement	Not available	-	-	-
Calcium Hydroxide	LD50 Oral	Rat	7340mg/kg	Severe

Sensitisation

There is no data available

Carcinogenicity

Classification

Product / Ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Crystalline silica (Quartz)	-	1	Known to be a human carcinogen	A2	-	+

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Calcium Hydroxide	Category 3	Not Applicable	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Calcium Hydroxide	Category 1	Inhalation	Kidneys, Respiratory tract and testes

Aspiration Hazard	There is no data available.
Information on the likely routes of exposure	Dermal contact. Eye Contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact	Causes serious eye damage
Inhalation	May cause respiratory irritation
Skin contact	Causes skin irritation
Ingestion	No known significant effects or critical hazards

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Adverse symptoms may include pain, watering and redness
Inhalation	Adverse symptoms may include respiratory tract irritation, coughing and burning sensation.
Skin contact	Adverse symptoms may include pain or irritation, redness, blistering may occur.
Ingestion	Adverse symptoms may include burning sensation, abdominal cramps and pain, vomiting.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short Term exposure

Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.

Long Term exposure

Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.

Potential chronic health effects

General	Causes damage to organs through prolonged or repeated exposure.
Carcinogenicity	May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity: There is no data available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Product / Ingredient name	Result	Species	Exposure
Calcium Hydroxide	Acute LC50 33884.4µg/L Fresh water	Fish – Clarias gariepinus - Fingerling	96 hours

Persistence and degradability: There is no data available

Bioaccumulative potential: There is no data available

Mobility in soil

Soil/water partition coefficient (Koc): Not available

Other adverse effects: No known significant effects or critical hazards

SECTION 13 DISPOSAL CONSIDERATION

Waste treatment methods

Product / packaging disposal	Containers may contain residue and can still pose a hazard when empty.
	Do not allow wash water from cleaning or process equipment to enter drains
	Recycle wherever possible or consult manufacturer for recycling options.

Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

SECTION 14 TRANSPORT INFORMATION

Labelling

Marine Pollutant	No
HAZCHEM	Not applicable

Land transport (UN): Not regulated for transport of dangerous goods.

Air transport (ICAT-IATA / DGR): Not regulated for transport of dangerous goods.

Sea transport (IMDG-Code / GGVSee): Not regulated for transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code: Not regulated for transport of dangerous goods.

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

This substance is to be managed using the conditions specified in an applicable group standard.

HSR Number	Group Standard
HSR002544	Construction Products (Subsidiary Hazard) Group Standard 2006

Portland Cement (65997-15-1)

New Zealand Inventory of Chemicals (NZIoC)	New Zealand Workplace Exposure Standards (WES)
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Calcium Hydroxide (1305-62-0)

New Zealand Hazardous Substances and New Organisms (HSNO) Act – Classification of Chemicals	New Zealand Workplace Exposure Standards (WES)
New Zealand Inventory of Chemicals (NZIoC)	

Location Test Certificate

Subject to Regulation 55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations and Regulation 9 of the Hazardous substances (Classes 6, 8 and 9 Controls) Regulations, the substance must be under the personal control of an approved handler when present in a quantity greater than or equal to those indicated below.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
Not applicable	Not applicable	Not applicable

Approved Handler

Subject to regulation 56 of the Hazardous Substances) Classes 1 to 5 Controls) Regulations and Regulation 9 of the Hazardous Substances (Class 6, 8 and 9 Controls) Regulations, the substance must be under the personal control of an Approved Handler when present in a quantity greater than or equal to those indicated below.

Class of Substance	Quantity
Not applicable	Not applicable

Refer Group Standards for further information.

Tracking Requirements

Not Applicable

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (Portland cement, calcium hydroxide)
China IECS	Y
Europe – EINEC / ELINCS / NLP	Y

Japan - ENCS	N (Portland cement)
Korea – KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	N (Portland Cement)
USA - TSCA	Y
Legend	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredient in brackets)

SECTION 16 OTHER INFORMATION

Ingredients with multiple CAS numbers

Name	CAS No.
Calcium hydroxide	1305-62-0, 1332-69-0

History

Date of issue: 25/09/16

Version: V5

Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard that exists.