

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 |
|--|--|

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/m ³ | Respirable fraction |
| New Zealand Exposure Standards (WES) | Calcium Hydroxide | Hydrated / Slaked Lime | 5 mg/m ³ | Respirable fraction |
| New Zealand Exposure Standards (WES) | Crystalline Silica (Quartz) SiO ₂ | Silica | 0.1mg/m ³ | Respirable fraction |

| Source | Ingredient | Material Name | TWA | Notes |
|--------|------------|---------------|-----|-------|
|--------|------------|---------------|-----|-------|

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) |
|--|--|

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: 25/09/21

Version: V6

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.