



# EXTERIOR USE PLASTER

# **Cemix Cemplaster**

Chemwatch: **5437-11**Version No: **2.1**Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations

Issue Date: 13/11/2020 Print Date: 20/03/2025 S.GHS.NZL.EN.E

## SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier						
Product name	Cemix Cemplaster					
Chemical Name	Not Applicable					
Synonyms	Not Available					
Chemical formula	Not Applicable					
Other means of identification	Not Available					
Relevant identified uses of the s	ubstance or mixture and uses advised against					
Relevant identified uses	For solid plaster applications for layers up to 12mm.					
Details of the manufacturer or su	supplier of the safety data sheet					
Registered company name	Cemix (a part of Ardex NZ)					
Address	19 Alfred Street Onehunga Auckland 1061 New Zealand					
Telephone	+64 9 636 1000					
Fax	+64 9 636 0000					
Website	www.cemix.co.nz					
Email	info@cemix.co.nz					
Emergency telephone number						
Association / Organisation	Cemix (a part of Ardex NZ)					
Emergency telephone number(s)	0800 ASK CEMIX					
Other emergency telephone number(s)	0800 764 766					

### **SECTION 2 Hazards identification**

### Classification of the substance or mixture

Classification <sup>[1]</sup>	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1, Specific Target Organ Toxicity - Single Exposure Category 1, Specific Target Organ Toxicity - Repeated Exposure Category 1
	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex

Legend: VI

**Determined by Chemwatch** 6.3A, 8.3A, 6.5B (contact), 6.7A, 6.9A using GHS/HSNO criteria

Label elements

Hazard pictogram(s)





Signal word Danger

Hazard statement(s)

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

Print Date: **20/03/2023** 

		Page 1 continued.
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H350	May cause cancer.	
H370	Causes damage to organs.	
H372	Causes damage to organs through prolonged or repeated exposure.	
recautionary statement(s) Prev	rention	
P201	Obtain special instructions before use.	
P260	Do not breathe dust/fume.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	
P270	Do not eat, drink or smoke when using this product.	
P264	Wash all exposed external body areas thoroughly after handling.	
P272	Contaminated work clothing should not be allowed out of the workplace.	
recautionary statement(s) Res	ponse	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.	
P310	Immediately call a POISON CENTER/doctor/physician/first aider.	
P302+P352	IF ON SKIN: Wash with plenty of water and soap.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P362+P364	Take off contaminated clothing and wash it before reuse.	
recautionary statement(s) Stor	age	
P405	Store locked up.	
recautionary statement(s) Disp	osal	
P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.	

# Substances

See section below for composition of Mixtures

### Mixtures

Mixtures					
CAS No	%[weight]	Name			
14808-60-7	>60	silica crystalline - quartz			
65997-15-1	10-30	portland cement			
1305-62-0	1-5	calcium hydroxide			
Not Available	balance	Ingredients determined not to be hazardous			
Legend:	Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available				

# **SECTION 4 First aid measures**

Eye Contact	If this product comes in contact with the eyes:  ► Immediately hold eyelids apart and flush the eye continuously with running water.  ► Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  ► Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  ► Transport to hospital or doctor without delay.  ► Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs:  ▶ Immediately remove all contaminated clothing, including footwear.  ▶ Flush skin and hair with running water (and soap if available).  ▶ Seek medical attention in event of irritation.

Version No: **2.1** Print Date: **20/03/2025** 

Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area. ► Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ► Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ► Seek medical advice.</li> </ul>

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Chemwatch: 5437-11

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- ▶ Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- ▶ Oxygen is given as indicated.
- ▶ The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- ▶ Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

INGESTION:

- Milk and water are the preferred diluents
- No more than 2 glasses of water should be given to an adult.
- ▶ Neutralising agents should never be given since exothermic heat reaction may compound injury. \* Catharsis
- and emesis are absolutely contra-indicated.
- \* Activated charcoal does not absorb alkali.
- \* Gastric lavage should not be used.

Supportive care involves the following:

- ▶ Withhold oral feedings initially.
- ▶ If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- ▶ Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- ▶ Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia). SKIN AND EYE:
- ▶ Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

## **SECTION 5 Firefighting measures**

### **Extinguishing media**

- Foam.
- Dry chemical powder.
- ▶ BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

### Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
Advice for firefighters	
Fire Fighting	<ul> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use fire fighting procedures suitable for surrounding area.</li> <li>▶ DO NOT approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul>
Fire/Explosion Hazard	▶ Non combustible. ▶ Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: silicon dioxide (SiO2) When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles. May emit poisonous fumes. May emit corrosive fumes.

### **SECTION 6 Accidental release measures**

# Personal precautions, protective equipment and emergency procedures

See section 8

# **Environmental precautions**

See section 12

### Methods and material for containment and cleaning up

Issue Date: 13/11/2020

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

# ▶ Clean up all spills immediately.

- ▶ Avoid breathing dust and contact with skin and eyes.
- ▶ Wear protective clothing, gloves, safety glasses and dust respirator.
- ▶ Use dry clean up procedures and avoid generating dust.

### Minor Spills ▶ S

Major Spills

- ▶ Sweep up, shovel up or
   ▶ Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- ▶ Place spilled material in clean, dry, sealable, labelled container.

# Moderate hazard.

- ► CAUTION: Advise personnel in area.
- ▶ Alert Emergency Services and tell them location and nature of hazard.
- ▶ Control personal contact by wearing protective clothing.

▶ Avoid contact with copper, aluminium and their alloys.

- ▶ Prevent, by any means available, spillage from entering drains or water courses.
- ▶ Recover product wherever possible.
- ▶ IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.
- ▶ ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise Emergency Services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

Precautions for safe handling	
Safe handling	<ul> <li>► Avoid all personal contact, including inhalation.</li> <li>► Wear protective clothing when risk of exposure occurs.</li> <li>► Use in a well-ventilated area.</li> <li>► Prevent concentration in hollows and sumps.</li> <li>► DO NOT enter confined spaces until atmosphere has been checked.</li> <li>► DO NOT allow material to contact humans, exposed food or food utensils.</li> <li>► Avoid contact with incompatible materials.</li> <li>► When handling, DO NOT eat, drink or smoke.</li> <li>► Keep containers securely sealed when not in use.</li> <li>► Avoid physical damage to containers.</li> <li>► Always wash hands with soap and water after handling.</li> <li>► Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>► Use good occupational work practice.</li> <li>► Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>
	▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other information	<ul> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry area protected from environmental extremes.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>For major quantities:</li> <li>▶ Consider storage in bunded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams}.</li> <li>▶ Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.</li> </ul>
Conditions for safe storage, inc	luding any incompatibilities
Suitable container	Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag. <b>NOTE</b> : Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
	Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.
	▶ Avoid strong acids, bases.

# SECTION 8 Exposure controls / personal protection

# Control parameters

Occupational Exposure Limits (OEL)

Storage incompatibility

### INGREDIENT DATA

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	silica crystalline quartz	Silica- Crystalline (all forms) respirable dust	0.025 mg/m3	Not Available	Not Available	carcinogen category 1 - Known or presumed human carcinogen; α-quartz and cristobalite are confirmed carcinogens. Significant risk to workers will remain at WES-TWA exposures of 0.025mg/m3. The US Occupational Safety and Health Administration (OSHA) has estimated the lifetime silicosis mortality risk for workers exposed at this level for 8 hours per day at between 4 and 22 deaths per 1,000 workers and the lifetime lung cancer mortality risk for workers exposed at this level for 8 hours per day at between 3 and 23 deaths per 1,000 workers.
New Zealand Workplace Exposure Standards (WES)	portland cement	Cement (Portland cement)	3 mg/m3	Not Available	Not Available	(dsen) - Dermal sensitiser

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

New Zealand Workplace Exposure Standards (WES)	portland cement	Cement (Portland cement) respirable dust	1 mg/m3	Not Available	Not Available	(dsen) - [	Dermal sensitiser
New Zealand Workplace Exposure Standards (WES)	calcium hydroxide	Calcium hydroxide	1 mg/m3	4 mg/m3	Not Available	Not Avail	able
Ingredient	Original IDLH	Original IDLH					Revised IDLH
silica crystalline - quartz	25 mg/m3 / 50	25 mg/m3 / 50 mg/m3					Not Available
portland cement	5,000 mg/m3	5,000 mg/m3					Not Available
calcium hydroxide	Not Available	Not Available					Not Available

#### **Exposure controls**

## Appropriate engineering

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.

▶ If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:

(a): particle dust respirators, if necessary, combined with an absorption cartridge; (b):

filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods

or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or

#### Individual protection measures, such as personal protective equipment













# Eye and face protection

- ▶ Safety glasses with side shields
- ► Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]
- ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

### Skin protection

See Hand protection below

Version No: 2.1 Print Date: 20/03/2025

### Hands/feet protection

Chemwatch: 5437-11

### NOTE:

- ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to
- ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact.
- chemical resistance of glove material
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.

· Contaminated gloves should be replaced.
As defined in ASTM F-739-96 in any application, gloves are rated as:
· Excellent when breakthrough time > 480 min

- Good when breakthrough time > 20 min
- · Fair when breakthrough time < 20 min ·
- Poor when glove material degrades

For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are

not present ▶ polychloroprene

nitrile rubber. 🕨
butyl rubber. 🕨
fluorocaoutchouc.
▶ polyvinyl chloride
Gloves should be ex-

camined for wear and/ or degradation constantly. See Other protection below

# Body protection

### Other protection

- ▶ P.V.C apron.
- ▶ Barrier cream Skin cleansing cream.
- ▶ Eye wash unit

# Recommended material(s)

### **GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the: "Forsberg

### Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Cemix Cemplaster

Material	СРІ
NATURAL RUBBER	Α
NATURAL+NEOPRENE	А

CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted

# Ansell Glove Selection

Glove — In order of recommendation	

AlphaTec® 15-554	
AlphaTec® Solvex® 37-185	
AlphaTec® 38-612	
AlphaTec® 58-008	
AlphaTec® 58-530B	
AlphaTec® 58-530W	
AlphaTec® 58-735	
AlphaTec® 79-700	
AlphaTec® Solvex® 37-675	
DermaShield™ 73-711	

The suggested gloves for use should be confirmed with the glove supplier.

### **SECTION 9 Physical and chemical properties** Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum	Half-Face	Full-Face	Powered Air
Protection Factor	Respirator	Respirator	Respirator

Issue Date: 13/11/2020

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

up to 10 x ES	P1 Air-line*	-	PAPR-P1
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-

|--|

<sup>\* -</sup> Negative pressure demand \*\* - Continuous flow

- Negative pressure defination - Continuous nivo (All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Appearance	Grey powder; insoluble in water		
Physical state	Divided Solid	Relative density (Water = 1)	1.0
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
elting point / freezing point (°C)	Not Applicable	Viscosity (cSt)	Not Applicable
tial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Jpper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
ower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
eat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	► Unstable in the presence of incompatible materials.  ► Product is considered stable.  ► Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

# **SECTION 11 Toxicological information**

Information on toxicological effects		
a) Acute Toxicity  Based on available data, the classification criteria are not met.		
b) Skin Irritation/Corrosion	There is sufficient evidence to classify this material as skin corrosive or irritating.	
c) Serious Eye Damage/Irritation	There is sufficient evidence to classify this material as eye damaging or irritating	

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

version ino: 2.1	Print Date: <b>20/03/2025</b>
d) Respiratory or Skin sensitisation	There is sufficient evidence to classify this material as sensitising to skin or the respiratory system
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	There is sufficient evidence to classify this material as carcinogenic
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	There is sufficient evidence to classify this material as toxic to specific organs through single exposure
i) STOT - Repeated Exposure	There is sufficient evidence to classify this material as toxic to specific organs through repeated exposure
j) Aspiration Hazard	Based on available data, the classification criteria are not met.
Inhaled	There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.  Inhalation may result in ulcers or sores of the lining of the nose (nasal mucosa), and lung damage.  Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.  If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Effects on lungs are significantly enhanced in the presence of respirable particles.
Ingestion	Not normally a hazard due to the physical form of product. The material is a physical irritant to the gastro-intestinal tract Ingestion may result in nausea, abdominal irritation, pain and vomiting
Skin Contact	This material can cause inflammation of the skin on contact in some persons.  The material may accentuate any pre-existing dermatitis condition  Skin contact may result in severe irritation particularly to broken skin. Ulceration known as "chrome ulcers" may develop. Chrome ulcers and skin cancer are significantly related.  Open cuts, abraded or irritated skin should not be exposed to this material  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	There is sufficient evidence to suggest that this material directly causes cancer in humans.  Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  Danger of serious damage to health by prolonged exposure.  Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle.  The smaller the size, the greater the tendencies of causing harm.  Red blood cells and rabbit alveolar macrophages exposed to calcium silicate insulation materials in vitro showed haemolysis in one study but not in another. Both studies showed the substance to be more cytotoxic than titanium dioxide but less toxic than asbestos.  In a small cohort mortality study of workers in a wollastonite quarry, the observed number of deaths from all cancers combined and lung cancer were lower than expected. Wollastonite is a calcium inosilicate mineral (CaSiO3). In some cases, small amounts of iron (Fe), and manganese (Mn), and lesser amounts of magnesium (Mg) substitute for calcium (Ca) in the mineral formulae (e.g., rhodonite) in an inhalation study in rats no increase in tumour incidence was observed but the number of fibres with lengths exceeding 5 um and a diameter of less than 3 um was relatively low. Four grades of wollastonite of different fibre size were tested for carcinogenicity in one experiment in rats by intrapleural implantation. There was no information on the purity of the four samples used. A slight increase in the incidence of pleural sarcomas was observed with three grades, all of which contained fibres greater than 4 um in length and less than 0.5 um idameter.  In two studies by intraperitoneal injection in rats using wollastonite with median fibre lengths of 8.1 um and 5.6 um respectively, no intraabdominal tumours were found.  Evidence from wollastonite miners sugges
	Repeated, prolonged severe inhalation exposure may cause pulmonary oedema and rarely, pulmonary fibrosis. Workers may also suffer from dust-induced bronchitis with chronic bronchitis reported in 17% of a group occupationally exposed to high dust levels.  Respiratory symptoms and ventilatory function were studied in a group of 591 male Portland cement workers employed in four Taiwanese cement plants, with at least 5 years of exposure (1). This group had a significantly lowered mean forced vital capacity (FCV), forced expiratory volume at 1 s (FEV1) and forced expiratory flows after exhalation of 50% and 75% of the vital capacity (FEF50, FEF75). The data suggests that occupational exposure to Portland cement dust may lead to a higher incidence of chronic respiratory symptoms and a reduction of ventilatory capacity.  Chun-Yuh et al; Journal of Toxicology and Environmental Health 49: 581-588, 1996  Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50000 inch) are present. Lung shadows are seen in the Xray. Symptoms of pneumoconiosis may include a progressive dry cough, shortness of breath on exertion, increased chest expansion, weakness and weight loss. As the disease progresses, the cough produces stringy phlegm, vital capacity decreases further, and shortness of breath becomes more severe. Other signs or symptoms include changed breath sounds, reduced oxygen uptake during exercise, emphysema and rarely, pneumothorax (air in the lung cavity).  Removing workers from the possibility of further exposure to dust generally stops the progress of lung abnormalities. When there is hig

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

Cemix	TOXICITY		IRRITATION	
Cemplaster	Not Available	3	Not Available	
silica crystalline	TOXICITY		IRRITATION	
- quartz	Oral (Rat) LD	050: 500 mg/kg <sup>[2]</sup>	Not Available	
	TOWN		IDDITATION	
portland cement TOXICITY Not Available			IRRITATION  Not Available	
	. rot/ trailable	,	THE	
	TOXICITY		IRRITATION	
calcium	dermal (rat)	LD50: >2000 mg/kg <sup>[1]</sup>	Eye (Rodent - rabbit): 10mg - Seve	re
hydroxide	Inhalation (R	at) LC50: >3 mg/l4h <sup>[1]</sup>	Eye: adverse effect observed (irrita	ting) <sup>[1]</sup>
	Oral (Rat) LD	050: >2000 mg/kg <sup>[1]</sup>	Skin: adverse effect observed (irrita	ating) <sup>[1]</sup>
	Legend:	Nalue obtained from Europe ECHA Registered Substanc extracted from RTECS - Register of Toxic Effect of chemic.		om manufacturer's SDS. Unless otherwise specified data
		-		4.0.2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
SILICA CRYSTALLINE QUARTZ		WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS  The International Agency for Research on Cancer (IARC) has classified occupational exposures to respirable (<5 um) crystalline silica as being carcinogenic to humans. This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours.  * Millions of particles per cubic foot (based on impinger samples counted by light field techniques).  NOTE: the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.  The following information refers to contact allergens as a group and may not be specific to this product.		
PORTLAND CEMENT		Contact allergies quickly manifest themselves as contact et involves a cell-mediated (T lymphocytes) immune reaction mediated immune reactions. The significance of the contact and the opportunities for contact with it are equally importation one with stronger sensitising potential with which few in produce an allergic test reaction in more than 1% of the per No significant acute toxicological data identified in literature	czema, more rarely as urticaria or Quin of the delayed type. Other allergic skin it allergen is not simply determined by i nt. A weakly sensitising substance which individuals come into contact. From a consons tested.	cke's oedema. The pathogenesis of contact eczema reactions, e.g. contact urticaria, involve antibody- its sensitisation potential: the distribution of the substance ch is widely distributed can be a more important allergen
CALCIUM HYDROXIDE		The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.		
PORTLAND CEMENT & CALCIUM HYDROXIDE		Asthma-like symptoms may continue for months or even ye reactive airways dysfunction syndrome (RADS) which can a RADS include the absence of previous airways disease in a hours of a documented exposure to the irritant. Other criter severe bronchial hyperreactivity on methacholine challenge asthma) following an irritating inhalation is an infrequent dis substance. On the other hand, industrial bronchitis is a disc particles) and is completely reversible after exposure cease	occur after exposure to high levels of h a non-atopic individual, with sudden on ia for diagnosis of RADS include a reve e testing, and the lack of minimal lymph sorder with rates related to the concent order that occurs as a result of exposur	ighly irritating compound. Main criteria for diagnosing uset of persistent asthma-like symptoms within minutes to ersible airflow pattern on lung function tests, moderate to nocytic inflammation, without eosinophilia. RADS (or ration of and duration of exposure to the irritating the due to high concentrations of irritating substance (often
Acute Toxicity			Carcinogenicity	
Skin Irritation/Corrosion  Serious Eye Damage/Irritation  Respiratory or Skin sensitisation			Reproductivity	
		~	STOT - Single Exposure	<b>~</b>
		<b>~</b>	STOT - Repeated Exposure	<b>~</b>
	Mutagenicity		Aspiration Hazard	
				ner not available or does not fill the criteria for classification available or does not fill the criteria for classification or make classification

# **SECTION 12 Ecological information**

# Toxicity

Cemix Cemplaster	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

silica	Endpoint	Test Duration (hr)	Species	Value	Source
crystalline - quartz	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
portland cement	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
calcium hydroxide	EC50	48h	Crustacea	49.1mg/l	2
	EC50	72h	Algae or other aquatic plants	>14mg/l	2
hydroxide					
hydroxide	NOEC(ECx)	72h	Algae or other aquatic plants	14mg/l	2

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECE Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

DO NOT discharge into sewer or waterways

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

#### Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

#### Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

### **SECTION 13 Disposal considerations**

### Waste treatment methods

Product / Packaging disposal

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- ▶ It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Where in doubt contact the responsible authority.
- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ▶ Consult State Land Waste Management Authority for disposal.
- ▶ Bury residue in an authorised landfill.
- ▶ Recycle containers if possible, or dispose of in an authorised landfill.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

## **Disposal Requirements**

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance.

Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

# **SECTION 14 Transport information**

Labels Required				
Marine Pollutant	NO			
HAZCHEM	Not Applicable			

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

### Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

### 14.7. Maritime transport in bulk according to IMO instruments

# 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
silica crystalline - quartz	Not Available
portland cement	Not Available
calcium hydroxide	Not Available

#### 14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
silica crystalline - quartz	Not Available
portland cement	Not Available
calcium hydroxide	Not Available

### **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
HSR002545	Construction Products Carcinogenic Group Standard 2020

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

### silica crystalline - quartz is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

New Zealand Approved Hazardous Substances with controls

 ${\small \textbf{New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals} \\$ 

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES) portland

### cement is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES) calcium

# hydroxide is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

### **Additional Regulatory Information**

Not Applicable

# **Hazardous Substance Location**

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

# **Certified Handler**

Subject to Part 4 of the Health an

i Safety at Work (Hazardous Substances) Reg lations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

Refer Group Standards for further information

### Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
6.5A or 6.5B	120	1	3	

#### Tracking Requirements

Not Applicable

### **National Inventory Status**

National Inventory	Status		
Australia - AIIC / Australia Non- Industrial Use	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (silica crystalline - quartz; portland cement; calcium hydroxide)		
China - IECSC	Yes		
Europe - EINEC / ELINCS / NLP	Yes		
Japan - ENCS	No (portland cement)		
Korea - KECI	Yes		
New Zealand - NZIoC	Yes		
Philippines - PICCS	No (portland cement)		
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory 'Active'		
Taiwan - TCSI	Yes		
Mexico - INSQ	Yes		
Vietnam - NCI	Yes		
Russia - FBEPH	Yes		
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.		

## **SECTION 16 Other information**

Revision Date	13/11/2020
Initial Date	13/11/2020

# **SDS Version Summary**

Version	Date of Update	Sections Updated
2.1	13/11/2020	Hazards identification - Classification, Composition / information on ingredients - Ingredients

# Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### **Definitions and abbreviations**

- ▶ PC TWA: Permissible Concentration-Time Weighted Average
- ▶ PC STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit。
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ES: Exposure Standard
- OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index

Chemwatch: **5437-11** Issue Date: 13/11/2020 Print Date: 20/03/2025 Version No: 2.1

▶ DNEL: Derived No-Effect Level

- ▶ PNEC: Predicted no-effect concentration
- ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
- ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
- ▶ IGC: International Gas Carrier Code
- ▶ IBC: International Bulk Chemical Code
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ▶ ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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Page **14** of **15** 

# Cemix Cemplaster

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025

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Page **15** of **15** 

**Cemix Cemplaster** 

 Chemwatch: 5437-11
 Issue Date: 13/11/2020

 Version No: 2.1
 Print Date: 20/03/2025