

Portland Cement and Blends

1. Identification

Product Names: Portland Cement and Blends

UN Number: Not applicable.

Other names: Ultracem - Holcim Portland Cement Type GP & Type HE,
Class G Cement, White Cement

Proper Shipping Name: Not applicable.

Recommended Use: Cement for the production of concrete, mortar and paste.

Supplier:

Phone: 0800 HOLCIM (465 246)

Name: Holcim NZ Ltd

Website: www.holcim.co.nz

Address: Unit 1, Show Place,
Addington
Christchurch, 8024

Emergency Contacts: Emergency Services (Fire, Ambulance, Police) – Dial 111
National Poisons Information Centre – 0800 764 766 (0800 POISON)
Company Contact – 0800 HOLCIM (465 246)

2. Hazard Identification

Statement of Hazardous Nature:

This product is classified as hazardous according to the criteria of the *Hazardous Substances (Hazard Classification) Notice 2020*.
Not classified as a Dangerous Good according to NZS 5433.

Hazard Classification:

Skin irritation Category 2
Serious eye damage Category 1
Skin sensitisation Category 1
Specific target organ toxicity - single exposure Category 3
respiratory tract irritation

Prevention Statements:

Avoid breathing dust.
Wash hands and any exposed skin thoroughly after handling.
Wear protective gloves, protective clothing and eye / face protection
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.

Hazard Statements:



Note: The properties of cement and associated hazards change when water is added.
Highly corrosive to skin when wet or in slurry. Causes severe skin burns and eye damage. Can become highly corrosive by sweat or moisture on skin/eyes.

Danger

Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.

3. Composition & Information on Ingredients

Portland cement & blends contain original Portland cement and at the discretion of the manufacturer up to 10% mineral additions (Ultracem and White cement containing limestone, fly ash, Ground Granulated Blast Furnace Slag).

Ingredient	CAS Number	Concentration (%)
Portland Cement	65997-15-1	90 - 100
<i>Product may include</i>		
Crystalline silica	14808-60-7	< 0.05
Hex. Chromium	18540-29-9	< 0.002
Limestone	1317-65-3	< 10
Fly ash	68131-74-8	< 10
Ground Granulated Blast Furnace Slag (GGBFS)	65996-69-2	< 10

Notes: Respirable crystalline Silica (quartz) is a known human carcinogen.

4. First Aid Measures

New Zealand Poisons & Hazardous Chemicals National
Information Centre
phone 0800 POISON – 0800 764 766

Skin: IF ON SKIN, take off immediately all contaminated clothing. Wash skin thoroughly with plenty of water. Use a mild soap if available. Shower if necessary. Wash contaminated clothing before reuse. Seek medical attention for persistent irritation or burning of the skin.

Eyes: IF IN EYES (dry or wet), rinse cautiously with water for several minutes to remove all traces. Remove contact lenses, if present and easy to do. Continue rinsing. Do not attempt to remove solid particles embedded in the eye. If symptoms such as irritation or redness persist, seek medical attention.

Ingestion: IF SWALLOWED, rinse mouth and lips with water. Do NOT induce vomiting. If feeling unwell, seek medical attention.

Inhalation: IF INHALED, remove person to fresh air, away from dusty area, and keep in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if feeling unwell or experiencing breathing difficulties. If exposed or concerned, or if symptoms persist, seek medical attention.

Advice to Doctor: Treat symptomatically. Wet cement and lime are corrosive to skin and eye tissue and may cause caustic type burns. Cement burns with little warning – little heat is sensed.

5. Fire Fighting Measures

Flammability: Non-flammable and non-combustible,

Extinguishing media: Use appropriate for surrounding materials.

Hazardous Combustion products: Carbon and nitrogen oxides may be formed.

Fire Fighting Instructions: Treat as per requirements for surrounding fires. Evacuate area and contact emergency

services. Fight fire from safe distance and protected location. Approach from upwind.

Fire fighters should wear approved self-contained breathing apparatus and full protective clothing.

Prevent contamination from entering drains or water ways.

6. Accidental Release Measures

Protect yourself and others from harm. Wear appropriate protective equipment (see Section 8) including suitable respiratory protection in dusty environments or when ventilation is insufficient. Avoid inhalation of dust and contact with skin and eyes.

Spills: Use dry clean-up methods that do not disperse dust into the air such as gentle sweeping or an industrial vacuum cleaner with filters suitable for this product. Do not use compressed air.

Collect the spillage in a dry state if possible. Do not use water for cleaning bulk material as this will cause cement to set. Prevent spill from entering drain or waterways. Contain spillage, collect, and place in suitable containers for reuse or disposal in accordance with Section 13. If water is used to clean up residual material, ensure the water is recovered and neutralised before disposal.

If product is spilt into a waterway notify the appropriate Regional Council.

If wet cement is spilled, scoop up wet cement (e.g. with shovel) and place in a container. Allow material to dry and solidify before disposal as described under Section 13.

7. Handling & Storage

Safe Handling

Before use carefully read the product label.

Do not breathe dust. Respirable dust can be generated during processing, handling, and storage.

Avoid eye and skin contact. Wear protective gloves and eye/face protection.

Do not kneel in wet cement.

Wash hands and any exposed skin thoroughly after handling.

Immediately after working with cement or cement-containing materials, workers should shower with soap and water.

Promptly remove dusty clothing or clothing which is wet with

cement or associated liquid and launder before reuse. Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Certified Handler: Not required

Storage

Store locked up.

Store in a well-ventilated area.

Keep container / package tightly closed.

Keep dry and store off the ground.

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8. Exposure Controls & Personal Protection

Exposure Standards

Workplace Exposure Standards (WES):

Ingredient	CAS Number	TWA	STEL	Note
Portland Cement	65997-15-1	3 mg/m ³ 1 mg/m ³ (respirable)	-	Dermal sensitiser
Silica-crystalline (all forms)	-	0.025 mg/m ³ (respirable)	-	Carcinogen category 1;
Limestone (Calcium carbonate)	1317-65-3	10 mg/m ³		
Chromium (VI) compounds, as Cr	8540-29-9	0.00002 mg/m ³	0.0005 mg/m ³	Carcinogen category 1; dermal and respiratory sensitiser

Data source: Workplace Exposure Standards and Biological Indices (15th Edition, Feb 2025, WorkSafe)

Biological Exposure Indices (BEI):

Exposure	Determinant	Sampling time	BEI
Chromium (VI) water-soluble fume	Total chromium in urine	End of shift at end of work week End of 8-hour exposure	25µg/litre Increase of 10µg/litre

Data source: Workplace Exposure Standards and Biological Indices (15th Edition, Feb 2025, WorkSafe)

Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Ventilation: Ensure adequate ventilation – optimise natural airflows and keep out of enclosed spaces (work in the open air where possible). Local mechanical ventilation or extraction may be required in areas where dust could escape into the working environment. Local dust extraction and collection may be used, if necessary, to control airborne dust levels. If generated dust cannot be avoided, follow personal protection recommendations.

Personal Protection (PPE)

Wear protective gloves, protective clothing and eye/face protection. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Eyes/Face: Use tight fitting goggles or safety glasses with side shields in dusty environments. Eye protection must comply with AS/NZS 1337.

Skin: Use impervious, abrasion- and alkali-resistant gloves and barrier creams, boots, and protective clothing to protect the skin from prolonged contact with wet cement. The glove material must be impermeable and resistance to the product (in accordance with AS/NZS 2161). Consult your glove supplier for additional information on glove selection.

Respiratory: None required if engineering and handling controls are adequate to minimize dust generation and dust exposure (e.g. products kept damp). In case of inadequate ventilation and where the substance concentration can be higher than the exposure standard, wear an approved (disposable or reusable) respirator with particulate (P2 or P3) filters. Respiratory protection should comply with AS/NZS 1716 and maintained with AS/NZS 1715 (current until at least 2030). Alternatively, respiratory protection could comply with AS/NZS 16975.1 and 16975.2.

The type of respiratory protection required depends primarily on the concentration of the inhalable and respirable dust in the air, and the frequency and length of exposure time. For respiratory protection to be effective there needs to be a good facial seal of the respirator. The worker should be clean shaven, and the respirator fit tested. Fit Checks should be carried out each time a respirator is worn.

9. Physical & Chemical Properties

Appearance: Grey or white powder.

Odour: No odour.

Odour threshold: No data available.

pH: Alkaline when wet, 12 - 13

Boiling point: Not applicable

Melting point: ~1,350°C

Flash point: Not applicable

Autoignition Temp: Not applicable

Decomposition Temp: No data available

Flammability: Non-flammable.

Lower Flammability Limit (LEL): Not applicable

Upper Flammability Limit (UEL): Not applicable

Vapour pressure: Not applicable

Vapour density (Air =1): No data available.

Specific gravity (H₂O=1): 2.93 – 3.09

Solubility (water): Slight (0.1 – 1.0%)

Viscosity (dynamic): Not applicable

Viscosity (kinematic): No data available

Evaporation rate: Not applicable.

Partition coefficient (n-octanol/water): No data available.

10. Stability & Reactivity

Stability: Stable under normal conditions of use and storage.

Reactivity: When mixed with water, cements will harden into a stable mass that is not reactive in normal environments.

Wet cement is alkaline and incompatible with acids, ammonium salts, aluminium and other non-noble metals. Cement dissolves in hydrofluoric acid to produce corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide.

Conditions to avoid: Excessive dust generation.

Humid conditions during storage may cause lump formation and loss of product quality.

Incompatible Materials: Acids, ammonium salts, aluminium or other non-noble metals. Uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is produced.

Hazardous decomposition products: Cements will not decompose into any hazardous products.

Hazardous polymerisation: Does not occur.

11. Toxicological Information

Health Effects / Symptoms of Exposure

Acute Exposure (short term)

Inhalation: May cause respiratory irritation. Inhalation of dust can cause irritation and inflammation of the upper respiratory system.

Skin: May cause an allergic skin reaction. Contact with powder may result in rash or dermatitis.

Wet cement is highly alkaline (pH 12–13) and can cause caustic burns, skin ulcers.

Eyes: Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.

Ingestion: Not an expected route of entry. Ingestion may result in burns to the mouth and throat, nausea, vomiting and abdominal pain.

Aspiration hazard: Not classified.

Chronic Exposure (long term)

Respiratory or Skin sensitisation: Contact sensitiser; may cause an allergic skin reaction. Portland cement is a known dermal sensitiser.

Mutagenicity: Not classified.

Carcinogenicity: Not classified.

Note: This product may contain varying amounts of crystalline silica which is classified as carcinogenic to humans (IARC Group 1). Repeated exposure to dust may result in chronic inflammation of the respiratory system. Repeated exposure to crystalline silica may cause bronchitis, silicosis, and other respiratory disorders.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (STOT): . May cause respiratory irritation. Repeated exposure to dust may result in chronic inflammation of the respiratory system. Repeated exposure to crystalline silica may cause bronchitis, silicosis, and other respiratory disorders.

Other effects: Cement may contain trace [less than 0.05%] amounts of chromium salts or compounds including hexavalent chromium, or other metals found to be hazardous or toxic in some chemical forms. These metals are mostly present as trace substitutions within the principal minerals.

Toxicological Data

No toxicological data available for the product or its ingredients.

12. Ecological Information

Avoid release to the environment.

Do not wash cement down sewage and drainage systems or into bodies of water (e.g. streams).

The product forms an alkaline slurry when mixed with water which may affect the pH of aquatic systems if contact occurs in large quantities. Once set, product is persistent and has low degradability.

Persistence in environment: After hardening, product presents no toxicity risks. Product is persistent and has low degradability.

Mobility: Low mobility expected in a landfill situation.

Biodegradability: Product is not biodegradable.

Ecotoxicological Data

No data is available for this product as a whole or its ingredients.

13. Disposal Considerations

Dust from product is hazardous. Small amounts of material can be disposed of as common waste or returned to the container for later use if it is not contaminated. Large amounts may require special handling. Material should be kept out of storm water and sewer drains. Any discharge during clean-up should comply with Resource Consent requirements and any relevant District or Regional Council rules.

Containers / packaging may only be recycled if clean and free of residue as to be non-hazardous.

14. Transport Information

Not classified as a Dangerous Good according to NZS 5433:2020, UN Model Regulations, IATA and/or IMDG.

Proper Shipping Name: Not applicable.

Packing Group: Not applicable.

UN Number: Not applicable.

Marine Pollutant: Product or ingredients are not listed as Marine Pollutant.

DG Class: Not applicable.

Subsidiary Risk: Not applicable.

15. Regulatory Information

HSNO Approval

All Ingredients are listed in the NZIoC.

This substance is to be managed using the conditions specified in an applicable Group Standard.

HSNO Group Standard: Construction Products (Subsidiary Hazard) Group Standard 2020 - HSR002544

Health and Safety at Work (Hazardous Substances) Regulations

TEL or EEL: None applied to this product or its ingredients.

Location Certification: Not required.

Tracking: Not required.

Certified Handlers: Not Required.

Secondary containment: Not required.

16. Other Information

Abbreviations / Terminology:

AS/NZS	Joint Australian New Zealand Standard
AS/NZS 1337	Personal eye-protection
AS/NZS 2161	Occupational protective gloves
AS/NZS 1715	Selection, use and maintenance of respiratory protective equipment
AS/NZS 1716	Respiratory protective devices
AS/NZS 16975.1	Respiratory protective devices - Selection, use and maintenance, Part 1: Establishing and implementing a respiratory protective device programme
AS/NZS 16975.2	Respiratory protective devices - Selection, use and maintenance, Part 2: Condensed guidance to establishing and implementing a respiratory protective device programme.
CAS #	Chemical Abstract Service number (a unique identifier for chemicals)

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CCID	New Zealand Chemical Classification and Information Database
EEL	Environmental Exposure Limits
HSNO	(New Zealand) Hazardous Substances and New Organisms Act
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
NZIoC	New Zealand Inventory of Chemicals
NZS 5433	Transport of Dangerous Goods on Land
TEL	Tolerable Exposure Limits
TWA	Time Weighted Average
STEL	Short Term Exposure Limit

Hazard Classification under GHS7:

Skin irritation Category 2	(6.3A)
Skin sensitisation Category 1	(6.5B)
Serious eye damage Category 1	(8.3A)
Specific target organ toxicity – single exposure Category 3 respiratory tract irritation	(6.1E (<i>respiratory</i>))

Previous HSNO classes for reference only

Prepared with reference to:

- *Hazardous Substances (Safety Data Sheets) Notice 2017*, published by Environmental Protection Authority, New Zealand.

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

Current Version: 23 February 2026 (v3)

Revision Information: Updated existing SDS to meet NZ requirements and GHS 7 classifications.

Previous revision dated: November 2021 (v2) and August 2020 (v1).

Disclaimer:

This safety data sheet attempts to describe as accurately as possible the potential exposures associated with normal use of the product described herein. Health and safety precautions in the data sheet may not be adequate for all individuals and/or situations. Users have the responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations.

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