



4-XLT White

Safety Data Sheet

According to the Hazardous Substances and New Organisms Act (1996)
Date of Issue: 23/07/2024

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

1.1. Product Name

Product Form: Mixture

Product Name: 4-XLT White

Product Code: 0259-0050-22

1.2. Other Names

No additional information available

1.3. Recommended Use

Adhesive. For professional use only

1.4. Company Name, Address And Contact Details

Company

LATICRETE International

1 Laticrete Park, N

Bethany, CT 06524

T (203)-393-0010

www.laticrete.com

LATICRETE NEW ZEALAND LIMITED

Unit 3/118 Asquith Ave

Mt. Albert, Auckland, New Zealand

1025

PO Box 41541

Mt Roskill, Auckland, New Zealand

1440

1.5. Emergency Phone Number

Emergency Number : For Chemical Emergency call VelocityEHS day or night:

(800)255-3924 (North America)

+1 (813)248-0585 (International - collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification Of The Substance Or Mixture

GHS-NZ classification

Skin corrosion/irritation, Category 2

H315

Serious eye damage/eye irritation, Category 1

H318

Skin sensitisation, Category 1

H317

Carcinogenicity, Category 1

H350

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

H335

Specific target organ toxicity – Repeated exposure, Category 1

H372

2.2. GHS Label Elements, Including Precautionary Statements

GHS-NZ Labeling

Hazard Pictograms (GHS-NZ)



Signal Word (GHS-NZ)

: Danger

Hazard Statements (GHS-NZ)

- : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H350 - May cause cancer (inhalation).
H372 - Causes damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).

Precautionary Statements (GHS-NZ)

- : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms and face thoroughly after handling.

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- P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P280 - Wear protective clothing, eye protection, face protection.
 P302+P352 - IF ON SKIN: Wash with plenty of water.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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+P313 - IF exposed or concerned: Get medical advice/attention.
 P310 - Immediately call a POISON CENTER or doctor.
 P312 - Call a POISON CENTER or doctor if you feel unwell.
 P314 - Get medical advice/attention if you feel unwell.
 P321 - Specific treatment (see supplemental first aid instruction on this label).
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P405 - Store locked up.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Supplemental Information** : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

2.3. Other hazards which do not result in classification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-NZ)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Quartz	Quartz (SiO ₂) / Silica, crystalline, quartz / Crystalline silica, quartz / .alpha.-Quartz / Silica, crystalline, .alpha.-quartz / QUARTZ / Crystalline silica in the form of quartz / Quartz, silica / Quartz (respirable fraction) / Silica dust / Silica, crystalline-.alpha.quartz / Silica, .alpha.-quartz / Silicon dioxide / Silica, quartz / Silica, crystalline / Quartz (crystalline silica) / Silica dust, crystalline / QUARTZ POWDER / Silica, crystalline (quartz)	(CAS-No.) 14808-60-7	≤ 66	Carc. 1, H350 STOT SE 3, H335 STOT RE 1, H372
Cement, portland, chemicals	Portland cement / Silicate, portland cement / Cement (Portland) / Cement kiln dust / Cement Portland	(CAS-No.) 65997-15-1	30 - 60	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Limestone	Chalk / Limestone (A noncombustible solid characteristic of sedimentary rock. It consists primarily of calcium carbonate.) / Natural	(CAS-No.) 1317-65-3	< 3	Not classified.

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	calcium carbonate / Marble / Calcium carbonate / Limestone (sedimentary rock) / Calcite / Limestone ground / Acetate, 4-methyl-2-propyl-2H-tetrahydropyran-4-yl / Ground limestone			
Kaolin	KAOLIN / Kaolin clay / Hydrated aluminium silicate / Hydrated silicates of aluminium / Hydrous alum silicates	(CAS-No.) 1332-58-7	< 3	Not classified.
Calcium sulfate hydrate	Gypsum	(CAS-No.) 13397-24-5	1.2 – 2.7	Not classified.
Calcium oxide	Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO) / Lime (calcium oxide)	(CAS-No.) 1305-78-8	≤ 1.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
Magnesium oxide (MgO)	MAGNESIUM OXIDE / Magnesia / C.I. 77711 / Magnesium oxide / Calcined magnesite	(CAS-No.) 1309-48-4	≤ 1.2	Not classified.
Chromium, ion (Cr6+)	Chromium hexavalent ion / Chromium(6+) ion / Chromium(VI) / Chromium(VI) ion / Hexavalent chromium ion	(CAS-No.) 18540-29-9	≤ 0.015	Resp. Sens. 1A, H334 Skin Sens. 1, H317 Carc. 1, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%)

SECTION 4: FIRST AID MEASURES

4.1. Description of Necessary First-Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

Skin Contact: Immediately remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Get immediate medical advice/attention.

Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most Important Symptoms/Effects, Acute and Delayed

General: May cause respiratory irritation. May cause cancer (Inhalation). Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation). Skin sensitisation. Crystalline silica: Cough, dyspnea (breathing difficulty), wheezing; decreased pulmonary function, progressive respiratory symptoms (silicosis). Causes serious eye damage. Causes skin irritation.

Inhalation: Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

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Skin Contact: Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete. . May cause an allergic skin reaction.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Causes damage to organs (respiratory system) through prolonged or repeated exposure (inhalation). May cause cancer by inhalation. This product contains crystalline silica. Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis; a seriously disabling and fatal lung disease, and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects. Pulmonary function may be reduced and pre-existing lung diseases such as: emphysema or asthma may be aggravated by inhalation exposure to dusts. Smoking aggravates the effects of exposure. Inhalation may lead to a progressive massive fibrosis which may be accompanied by right heart enlargement, heart failure, pulmonary failure of the lung and susceptibility to pulmonary tuberculosis.

4.3. Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand. Treatment will be based on severity and prognosis of disease.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water fog, alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Specific Hazards Arising From the Chemical

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Portland Cement reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete. Silicates dissolve in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

Hazchem Code:

5.3. Special Protective Actions for Fire-Fighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Avoid raising dust.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Unidentified hydrocarbons. Sulfur oxides. Metal oxides. Silica compounds. Oxides of calcium. Sodium oxides. Chlorides. Temperatures greater than 1800°F will cause conversion of the fabric to cristobalite, a form of crystalline silica, which may cause respiratory illness. The amount of cristobalite present will depend on the temperature and length of service. The OSHA PEL for crystalline silica is 0.05 mg/m³ (respirable). . Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C (1598 °F), it can change to a form of crystalline silica known as trydimite, and if crystalline silica (quartz) is heated to more than 1470°C (2678 °F), it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as trydimite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

Other Information: Risk of dust explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

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6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Personal Precautions, Protective Equipment and Emergency Procedures

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Cautiously neutralize spilled solid. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Use only non-sparking tools. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use water to suppress dust. Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May release corrosive vapours. Cutting, crushing or grinding crystalline silica-bearing materials may release respirable crystalline silica, a known carcinogen. Use all appropriate measures of dust control or suppression and personal protective equipment. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt.

Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), UK HSE (WEL), Australia OELs, or New Zealand (WES)

Quartz (14808-60-7)		
USA ACGIH	ACGIH OEL TWA	0.025 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	Suspected Human Carcinogen
Australia	OES TWA [1]	0.05 mg/m ³ (respirable dust)
New Zealand	WES-TWA (OEL TWA) [1]	0.05 mg/m ³ (respirable dust)

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New Zealand	Chemical category	Confirmed carcinogen
Cement, portland, chemicals (65997-15-1)		
USA ACGIH	ACGIH OEL TWA	1 mg/m ³ (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
Australia	OES TWA [1]	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-inhalable dust)
New Zealand	WES-TWA (OEL TWA) [1]	3 mg/m ³ 1 mg/m ³ (respirable dust)
New Zealand	WES-TWA (OEL TWA) [2]	1 mg/m ³ (respirable dust)
New Zealand	Chemical category	dermal sensitiser
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (OEL STEL)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Calcium oxide (1305-78-8)		
USA ACGIH	ACGIH OEL TWA	2 mg/m ³
Australia	OES TWA [1]	2 mg/m ³
New Zealand	WES-TWA (OEL TWA) [1]	2 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [1]	1 mg/m ³ (respirable fraction) 2 mg/m ³
United Kingdom	WEL STEL (OEL STEL)	4 mg/m ³ (respirable fraction) 6 mg/m ³ (calculated)
Chromium, ion (Cr6+) (18540-29-9)		
New Zealand	WES-TWA (OEL TWA) [1]	0.00002 mg/m ³ (exposure can also be estimated by biological monitoring)
New Zealand	WES-STEL (OEL STEL)	0.0005 mg/m ³ (exposure can also be estimated by biological monitoring)
New Zealand	Chemical category	Confirmed carcinogen,Sensitizer,respiratory sensitiser
Calcium sulfate hydrate (13397-24-5)		
USA ACGIH	ACGIH OEL TWA	10 mg/m ³ (inhalable particulate matter (Calcium sulfate))
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (OEL STEL)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Limestone (1317-65-3)		
New Zealand	WES-TWA (OEL TWA) [1]	10 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (OEL STEL)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Magnesium oxide (MgO) (1309-48-4)		
USA ACGIH	ACGIH OEL TWA	10 mg/m ³ (inhalable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
Australia	OES TWA [1]	10 mg/m ³ (fume)
New Zealand	WES-TWA (OEL TWA) [1]	10 mg/m ³ (fume)
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (inhalable dust; fume) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (OEL STEL)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-fume and respirable dust)
Kaolin (1332-58-7)		
USA ACGIH	ACGIH OEL TWA	2 mg/m ³ (particulate matter containing no asbestos and

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		<1% crystalline silica, respirable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
Australia	OES TWA [1]	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-inhalable dust)
New Zealand	WES-TWA (OEL TWA) [1]	10 mg/m ³ 2 mg/m ³ (respirable dust)
United Kingdom	WEL TWA (OEL TWA) [1]	2 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (OEL STEL)	6 mg/m ³ (calculated-respirable dust)

8.2. Monitoring

Monitoring Methods:

Specific Needed Monitoring:

Bei: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

8.3. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Maintain sufficient mechanical or natural ventilation to assure silica concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices. If product needs to be altered, use wet processing techniques if possible to minimize generation of dust.

8.4. Individual Protection Measures, Such as Personal Protective Equipment (PPE)

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Off white powder
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability	: No data available
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapour Pressure	: No data available

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Relative Vapour Density at 20°C	: No data available
Relative Density	: 1.2 – 1.5 (water =1)
Specific Gravity	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Portland Cement reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete. Silicates dissolve in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

10.5. Incompatible Materials:

Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Corrosive vapours. Silica compounds. Silicon oxides. Sodium oxides. Sulfur oxides. Metal oxides. Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C (1598 °F), it can change to a form of crystalline silica known as trydimite, and if crystalline silica (quartz) is heated to more than 1470°C (2678 °F), it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as trydimite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz). Chlorides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Likely Routes Of Exposure: Dermal, Ingestion, Inhalation, Eye contact

Acute Toxicity (Oral): Not classified. Based on available data, the classification criteria are not met

Acute Toxicity (Dermal): Not classified. Based on available data, the classification criteria are not met

Acute Toxicity (Inhalation): Not classified. Based on available data, the classification criteria are not met

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified. Based on available data, the classification criteria are not met

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

Reproductive Toxicity: Not classified. Based on available data, the classification criteria are not met

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified. Based on available data, the classification criteria are not met

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive

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fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

Symptoms/Injuries After Skin Contact: Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete. . May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Causes damage to organs (respiratory system) through prolonged or repeated exposure (inhalation). May cause cancer by inhalation. This product contains crystalline silica. Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis; a seriously disabling and fatal lung disease, and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects. Pulmonary function may be reduced and pre-existing lung diseases such as: emphysema or asthma may be aggravated by inhalation exposure to dusts. Smoking aggravates the effects of exposure. Inhalation may lead to a progressive massive fibrosis which may be accompanied by right heart enlargement, heart failure, pulmonary failure of the lung and susceptibility to pulmonary tuberculosis.

LD50 and LC50 Data:

Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Calcium oxide (1305-78-8)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2500 mg/kg
LC50 Inhalation Rat	> 6.04 mg/l/4h
Magnesium oxide (MgO) (1309-48-4)	
LD50 Oral Rat	3870 mg/kg (Source: NLM_HSDB)
Kaolin (1332-58-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg (Source: NLM_HSDB)
LD50 Dermal Rabbit	> 5000 mg/kg
Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
Chromium, ion (Cr6+) (18540-29-9)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute): Not classified. Based on available data, the classification criteria are not met

Hazardous to the aquatic environment, long-term (chronic): Not classified. Based on available data, the classification criteria are not met

Soil toxicity: Not classified. Based on available data, the classification criteria are not met

Terrestrial vertebrate toxicity: Not classified. Based on available data, the classification criteria are not met

Terrestrial invertebrate toxicity: Not classified. Based on available data, the classification criteria are not met

Calcium oxide (1305-78-8)	
LC50 Fish 1	50.6 mg/l

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Chromium, ion (Cr6+) (18540-29-9)	
LC50 Fish 1	36.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 Fish 2	7.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

12.2. Persistence and Degradability

4-XLT White	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

4-XLT White	
Bioaccumulative Potential	Not established.
Calcium oxide (1305-78-8)	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Ozone: Not classified. Based on available data, the classification criteria are not met

Effect On Global Warming:

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with UN RTDG, IMDG, and IATA

UN RTDG	IMDG	IATA
14.1. UN Number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated for transport		
14.3. Transport Hazard Class(es)		
Not regulated for transport		
14.4. Packing Group		
Not regulated for transport		
14.5. Environmental Hazards		
Not regulated for transport		

14.6. Special Precautions For User

No additional information available

14.7. Transport in Bulk According to Annex II of MARPOL and The IBC Code

Not applicable

14.8. Hazchem or Emergency Action Code

No additional information available

SECTION 15: REGULATORY INFORMATION

15.1. International Regulatory Lists

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on IARC (International Agency for Research on Cancer)

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According to the Hazardous Substances and New Organisms Act (1996)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed as carcinogen on NTP (National Toxicology Program)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

Cement, portland, chemicals (65997-15-1)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian IDL (Ingredient Disclosure List)
Disclosure at 1 % according to The Ingredient Disclosure List.

Calcium oxide (1305-78-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

Chromium, ion (Cr6+) (18540-29-9)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Calcium sulfate hydrate (13397-24-5)

Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

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According to the Hazardous Substances and New Organisms Act (1996)

Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

Limestone (1317-65-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian NDSL (Non-Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

Magnesium oxide (MgO) (1309-48-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

Kaolin (1332-58-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

15.2. International Agreements

No additional information available

15.3. Local Regulations

Quartz (14808-60-7)

HSNO Approval Number	HSR003125
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According to the Hazardous Substances and New Organisms Act (1996)

Calcium oxide (1305-78-8)	
HSNO Approval Number	HSR006511
Magnesium oxide (MgO) (1309-48-4)	
HSNO Approval Number	HSR006644

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision : 23/07/2024

Revision

Data Sources : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

GHS Full Text Phrases:

Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1	Carcinogenicity, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Resp. Sens. 1A	Respiratory sensitisation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H303	May be harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Indication of Changes:

No additional information available

Abbreviations and Acronyms:

ACGIH – American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
BEI - Biological Exposure Indices (BEI)
BOD – Biochemical Oxygen Demand
CAS No. - Chemical Abstracts Service Number
COD – Chemical Oxygen Demand
EC50 - Median Effective Concentration
EmS-No. (Fire) - IMDG Emergency Schedule Fire
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage

Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water
MARPOL – International Convention for the Prevention of Pollution
MFAG-No - Medical First Aid Guide for Use in Accidents Involving Dangerous Goods
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NTP – National Toxicology Program
OEL - Occupational Exposure Limits
pH – Potential Hydrogen

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Safety Data Sheet

According to the Hazardous Substances and New Organisms Act (1996)

ErC50 - EC50 in Terms of Reduction Growth Rate	SADT - Self Accelerating Decomposition Temperature
ERG code (IATA) - Emergency Response Drill Code as found in the International Civil Aviation Organization (ICAO)	SDS - Safety Data Sheet
GHS – Globally Harmonized System of Classification and Labeling of Chemicals	STEL - Short Term Exposure Limit
GWP – Global Warming Potential	STOT – Specific Target Organ Toxicity
IARC - International Agency for Research on Cancer	ThOD – Theoretical Oxygen Demand
IATA - International Air Transport Association	TLM - Median Tolerance Limit
IBC – International Bulk Chemical Code	TLV - Threshold Limit Value
IMDG - International Maritime Dangerous Goods	TWA - Time Weighted Average
LC50 - Median Lethal Concentration	UK HSE – United Kingdom Health and Safety Executive
LD50 - Median Lethal Dose	UN – United Nations
LOAEL - Lowest Observed Adverse Effect Level	UN RTDG – United Nations Recommendations on the Transport of Dangerous Goods
LOEC - Lowest-Observed-Effect Concentration	VOC – Volatile Organic Compounds
Log K _{oc} - Soil Organic Carbon-water Partitioning Coefficient	WEEL - Workplace Environmental Exposure Levels
Log K _{ow} - Octanol/water Partition Coefficient	WEL – Workplace Exposure Limit
	WES – Workplace Exposure Standards

Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)	FOOD_JOURN: Food Research Journal (1956)
AU_WES: Australia WES	IARC: The International Agency for Research on Cancer
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)	IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
EC_RAR: European Commission Renewal Assessment Report	IUCLID: International Uniform Chemical Information Database
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits	JAPAN_GHS: Japan GHS Basis for Classification Data
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports	JP_J-CHECK: Japan J-Check
ECHA_API: European Chemicals Agency API	KR_NIER: South Korea National Institute of Environmental Research Evaluations
ECHA_RAC: ECHA Committee for Risk Assessment	NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
EFSA: European Food Safety Authority	NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
EPA: U.S. Environmental Protection Agency	NLM_CIP: National Library of Medicine ChemID plus database
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)	NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)	NLM_PUBMED: National Library of Medicine PubMed database
EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)	NTP: National Toxicology Program
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)	NZ_CCID: New Zealand Chemical Classification and Information Database
EU_CLH: European Union Harmonised Classification and Labelling Proposal	OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
EU_RAR: European Union Risk Assessment Report	OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
	WHO: World Health Organization

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

New Zealand GHS SDS