

1. Identification

Product identifier:	Portland cement concrete
Other means of identification:	Ready-mix concrete, cement concrete, concrete
Recommended use:	Building materials
Restrictions on use:	For construction
Supplier:	Ciment Québec Inc. 145 Boulevard du Centenaire Saint-Basile, Québec Canada, G0A 3G0
Phone:	418 329-2100
Phone in case of emergency:	418 329-2100
Hours available:	24/7

2. Hazard identification

Signal word: DANGER

Product classification



Skin corrosion - Category 1C.

Serious eye damage - Category 1.

Carcinogenicity - Category 1A.

Specific target organ toxicity - repeated exposure - Category 1.

Skin sensitization - Category 1B.

Hazard statements

H314 - Causes severe skin burns and eye damage.

H350 - May cause cancer.

H372 - Risk of serious damage to organs (lungs) through prolonged or repeated exposure.

H317 - May cause skin allergy.

Safety advice

Prevention: Obtain instructions before use. Do not handle until you have read and understood all safety precautions. Do not breathe dust. Wash hands thoroughly after handling and any other part of the body which may have been exposed to the product. Do not eat, drink or smoke when handling this product. Contaminated work clothing should not be removed from the workplace. Wear protective gloves, clothing and eye/face protection.

Intervention: IF exposed or suspected: Seek medical advice. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin immediately with water for several minutes or take a shower. Wash contaminated clothing before reuse. Call a physician immediately. In case of irritation or rash Seek medical advice. IF IN EYES: Rinse immediately cautiously with water for several minutes. Remove contact lenses if present and easy to remove.



Safety data sheet

Portland cement concrete

Continue rinsing. Immediately call a doctor. IF INHALED: Remove person to fresh air and hold in a position comfortable for breathing. Consult a physician if you feel unwell.

Storage: Keep under lock and key.

Disposal: Dispose of contents/container in accordance with local, regional, national and/or international regulations.

Other hazards: No other effects shown.

See toxicological information, section 11.

3. Composition / information on ingredients

No	CAS No:	Common names and synonyms	Concentration % (w/w)*
1	14808-60-7	Crystalline silica, Crystalline silicon dioxide. Quartz.	10.00 - 80.00
2	1317-65-3	Limestone	10.00 - 80.00
3	65997-15-1	Portland cement**	1.00 - 20.00
5	18450-29-9	Hexavalent chromium***	Trace

* The actual concentration is presented as a range, as it is considered a trade secret.

** Portland cement* is used generally but may include blended hydraulic cement and/or masonry cement, depending on the concrete mix.

*** Cr (VI) is included because of the skin sensitivity associated with this product.

4. First-aid measures

In case of ingestion, irritation, any form of overexposure or symptoms of overexposure occurring during use or persisting after use, contact a POISON CENTER, EMERGENCY ROOM or PHYSICIAN immediately; make sure the product's Material Safety Data Sheet is available.

Eye contact: Check whether the victim wears contact lenses and, if so, remove them. Rinse eyes IMMEDIATELY under running water for at least 15 minutes, keeping eyelids open. Seek medical attention as soon as possible.

Skin contact: Remove contaminated clothing immediately. Wash skin with soap and water. Wet contaminated clothing with plenty of water. If irritation persists, consult a physician.

Inhalation: Take exposed person to a well-ventilated area. Keep the person warm and lying down. Loosen tight clothing such as a collar, tie, or belt. If breathing is absent, irregular, or stopped, qualified personnel should administer artificial respiration or oxygen. Seek medical attention immediately.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and lying down. Do not induce vomiting unless directed to do so by medical personnel.

Symptoms: This product is corrosive to the skin, eyes, respiratory and digestive tracts. Symptoms may vary in severity depending on exposure conditions (duration of contact, product concentration, etc.). Workers may develop cutaneous hypersensitivity.

Acute and delayed effects: On the skin, this product can cause severe burns. Eye contact may cause redness, tearing, swelling, pain, corneal opacity and even blindness. Exposure to high concentrations may cause severe damage and ulceration of the esophageal mucosa and gastrointestinal tract. May cause skin sensitization. Contains crystalline silica. Prolonged exposure to respirable crystalline silica may aggravate diseases of the respiratory system and lungs, and cause silicosis. The effects of silicosis may continue to develop even after exposure has ended and are irreversible. The progression of pulmonary fibrosis can also lead to the development of lung cancer.

Note to the attending physician: Damage to mucous membranes may contraindicate the use of gastric lavage.

Danger: Risk of gastric perforation.



Safety data sheet Portland cement concrete

5. Firefighting measures

Suitable extinguishing agents: Use CO₂ dry chemical powder, water spray (fog) or foam.

Unsuitable extinguishing agents: Water jets can spread the fire.

Hazards specific to the hazardous product: May release hazardous fumes.

Hazardous combustion products: Carbon monoxide and dioxide. Calcium oxides.

Special protective equipment and precautions for firefighters: Firefighters must wear suitable protective equipment and self-contained breathing apparatus (SCBA) fitted with a positive-pressure face mask.

6. Accidental release measures

Personal precautions: Do not take any action involving personal risk or if you are not adequately trained and protected. Evacuate surrounding area. Do not touch or walk in spilled product. Close all sources of heat and ignition. Avoid breathing vapours or mist. Ensure adequate ventilation. Wear suitable respiratory equipment when ventilation is inadequate. Wear suitable personal protective equipment (see Section 8).

Protective equipment and emergency procedures: Avoid dispersal of spilled material, runoff and contact with soil, drains, sewers and waterways. Notify the appropriate authorities if spilled into the environment. Use inert absorbent or spill containment pads for large spills.

Methods and equipment for containment and cleaning up: Stop leak if without risk. Move containers away from spill area. Contain leaks and collect with non-combustible absorbent materials such as sand, earth, or vermiculite. Then place in a container for disposal in accordance with local regulations. Dispose of through an authorized specialist company.

7. Handling and storage

Handling safety precautions: Wear suitable personal protective equipment (see Section 8). Do not eat, drink, or smoke in areas where this product is handled, stored, or processed. Persons working with this product should wash hands and face before eating, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin, and clothing. Do not swallow. Avoid breathing vapours or mist. Use only in a well-ventilated environment. Wear suitable respiratory equipment when ventilation is inadequate. Do not enter storage areas or confined spaces unless there is adequate ventilation. Keep in original container or suitable alternative container of compatible material, tightly closed when not in use. Empty containers contain product residues and may present a hazard. Do not reuse this container.

Handling of this product must comply with local regulations. Store in an airtight container in a dry, well-ventilated area with a corrosion-resistant cement floor. Refer to RSST and CNPI storage standards. Keep away from combustible materials and acids. If stored with other hazardous substances, refer to NFC segregation table. Containers of corrosive substances must be kept closed, their contents clearly identified and handled with care. Additional information: This product attacks certain types of plastic, rubber, and coatings.

Safe storage conditions: Store in accordance with local regulations, in a suitable, authorized area. Store in original container in a dry, cool, well-ventilated area, away from direct light, incompatible materials (see Section 10) and food. Keep container tightly closed when not in use. Open containers must be carefully resealed and kept in an upright position to prevent leakage. Do not store in unlabeled containers. Use a suitable container to avoid contamination of the surrounding environment.



Safety data sheet

Portland cement concrete

8. Exposure controls / Personal protection

Control parameters:

Occupational exposure limit values:

Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg / m ³)	0.025 mg / m ³ (respirable particulate matter)
USA OSHA	OSHA PEL (TWA) (mg / m ³)	50 µg / m ³
USA NIOSH	NIOSH REL (TWA) (mg / m ³)	0.05 mg / m ³ (respirable dust)
United States IDLH	US IDLH (mg / m ³)	50 mg / m ³ (respirable dust)
Alberta	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable particle)
British Columbia	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable)
Manitoba	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable particulate matter)
New Brunswick	OEL TWA (mg / m ³)	0.1 mg / m ³ (respirable fraction)
Newfoundland and Labrador	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable particulate matter)
Nova Scotia	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable particulate matter)
Nunavut	OEL TWA (mg / m ³)	0.05 mg / m ³ (respirable fraction)
Northwest Territories	OEL TWA (mg / m ³)	0.05 mg / m ³ (respirable fraction)
Ontario	OEL TWA (mg / m ³)	0.1 mg / m ³ (controlled substance - respirable)
Prince Edward Island	OEL TWA (mg / m ³)	0.025 mg / m ³ (respirable particulate matter)
Quebec	TWA (mg / m ³)	0.1 mg / m ³ (respirable dust)
Saskatchewan	OEL TWA (mg / m ³)	0.05 mg / m ³ (respirable fraction)
Yukon	OEL TWA (mg / m ³)	300 particles / ml
Portland cement (65997-15-1)****		
USA ACGIH	ACGIH TWA (mg / m ³)	1 mg / m ³ (particles containing no asbestos and <1% crystalline silica, respirable particle)
USA OSHA	OSHA PEL (TWA) (mg / m ³)	15 mg / m ³ (total dust) 5 mg / m ³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg / m ³)	10 mg / m ³ (total dust) 5 mg / m ³ (respirable dust)
United States DIV (IDLH)	US IDLH (mg / m ³)	5000 mg / m ³
Alberta	OEL TWA (mg / m ³)	10 mg / m ³
British Columbia	OEL TWA (mg / m ³)	1 mg / m ³ (particle containing no asbestos and less than 1% respirable crystalline silica)
Manitoba	OEL TWA (mg / m ³)	1 mg / m ³ (particle containing no asbestos and less than 1% respirable crystalline silica particles)
New Brunswick	OEL TWA (mg / m ³)	10 mg / m ³ (particulate matter containing no asbestos and <1% crystalline silica)
Newfoundland and Labrador	OEL TWA (mg / m ³)	1 mg / m ³ (particle containing no asbestos and less than 1% respirable crystalline silica)
Nova Scotia	OEL TWA (mg / m ³)	1 mg / m ³ (particle containing no asbestos and less than 1% respirable crystalline silica particles)
Nunavut	SEL OEL (mg / m ³)	20 mg / m ³
Nunavut	OEL TWA (mg / m ³)	10 mg / m ³
Northwest Territories	SEL OEL (mg / m ³)	20 mg / m ³
Northwest Territories	OEL TWA (mg / m ³)	10 mg / m ³



Safety data sheet

Portland cement concrete

Ontario	OEL TWA (mg / m ³)	1 mg / m ³ (containing no asbestos and <1% respirable crystalline silica)
Prince Edward Island	OEL TWA (mg / m ³)	1 mg / m ³ (particle containing no asbestos and less than 1% respirable crystalline silica)
Quebec	TWA (mg / m ³)	10 mg / m ³ (containing no asbestos and <1% crystalline silica - total dust) 5 mg / m ³ (containing no asbestos and less than 1% respirable crystalline silica dust)
Saskatchewan	SEL OEL (mg / m ³)	20 mg / m ³
Saskatchewan	OEL TWA (mg / m ³)	10 mg / m ³
Yukon	SEL OEL (mg / m ³)	20 mg / m ³
Yukon	OEL TWA (mg / m ³)	30 mppcf 10 mg/m ³

**** For exposure values of Portland cement components, please refer to the safety data sheet for this product.

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limits

REL: Recommended Exposure Limits ACGIH®: American Conference of Governmental Industrial Hygienists

TLV®: Threshold Limit Values SEL: Short Term Exposure Limit

OEL: Occupational Exposure Limit

DIV (IDLH): Danger imminent pour la vie (Immediate Danger to Life or Health)

Nota Bene: Section 3 ingredients not listed above have no exposure values or are below 1% concentration.

Appropriate engineering controls: Use only in a well-ventilated environment. Use enclosed enclosures, local exhaust ventilation, or other built-in automatic control systems to keep contaminant exposure below specified levels. Engineering measures must also keep gas, vapor or dust concentrations below any minimum explosion threshold.

Personal protective equipment: After handling chemicals, wash hands, forearms, and face thoroughly before eating, smoking, using the toilet and after work. Use appropriate techniques to remove contaminated clothing. Wash contaminated clothing before reuse. Ensure that eyewash stations and decontamination showers are installed near workstations.

Eyes: DO NOT WEAR EYE LENSES. Wear splash-proof safety goggles.

Hands: When handling chemicals, always wear waterproof, chemical-resistant gloves complying with an approved standard. Considering the parameters indicated by the glove manufacturer, check that gloves always retain their protective properties during use. In the case of mixtures of several substances, the duration of glove protection cannot be accurately assessed.

Respiratory: Workers exposed to contaminants must wear a respirator appropriate to the type of hazard and expected or known exposure levels, considering the safe use limits of the respirator selected. Use a properly fitted self-contained breathing apparatus or air-purifying respirator conforming to an approved standard, if recommended by a risk assessment.

Other: Always wear appropriate long-sleeved protective clothing and safety shoes.

9. Physical and chemical properties

Physical state: Paste (viscous liquid)

Color: Gray

Odour: Odourless

Melting/freezing point: > 0°C (32°F)

Initial boiling point/boiling range: > 100°C (212°F)

Flammability: Not applicable

Lower flammable or explosive limits: Not applicable

Upper flammable or explosive limits: Not applicable

Flash point: Not applicable.

Auto-ignition temperature: Not applicable



Safety data sheet

Portland cement concrete

Decomposition temperature: Not available
pH: 12.0 - 13.0 1% solution
Kinematic viscosity: Not applicable
Solubility (in water): < 0.1 g/L at 20°C
Partition coefficient n-octanol/water (Log_{Kow}): Not available.
Vapour pressure: 17.535 mm Hg at 20 °C
Density and relative density: 1,500 - 2,900 kg/L at 20°C (water = 1)
Relative vapour density: < 1 (air = 1)
Particle characteristics: Not applicable

10. Stability and reactivity

Reactivity: Stable under recommended storage and handling conditions.

Chemical stability: The product is chemically stable under normal conditions of use.

Risk of dangerous reactions: No polymerization or dangerous reactions occur under normal conditions of use.

Conditions to avoid: Keep away from incompatible products (see below).

Incompatible materials: None known at room temperature.

Incompatibilities: Oxidizing agents. acids. Magnesium. fluorine.

Hazardous decomposition products: Carbon monoxide and dioxide. Calcium oxides.

11. Toxicological information

	Oral	Cutaneous	Inhalation gas	Inhalation vapors	Inhalation dust/mist
ET _A product	> 5000 mg/kg	> 5000 mg/kg	N/A	> 20 mg/l	> 5 mg/l

No	CAS No:	Common names and synonyms	LD ₅₀ oral mg/kg	DL ₅₀ dermal mg/kg	LC ₅₀ ppm V for 4h - gas	LC ₅₀ mg/l for 4h - vapour	LC ₅₀ mg/l for 4h - dust mist
1	65997-15-1	Portland cement	> 5000	> 5000	N/A	N/A	> 5.00
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	> 5000	> 5000	N/A	N/A	> 5.00

Probable routes of exposure: This product is absorbed via the respiratory and digestive tracts. However, it is unlikely to be significantly absorbed into the body since its local action destroys tissues.

Symptoms: This product is corrosive to the skin, eyes, respiratory and digestive tracts. Symptoms may vary in severity depending on exposure conditions (duration of contact, product concentration, etc.). Workers may develop cutaneous hypersensitivity.

Delayed, immediate and chronic effects caused by short-term and long-term exposure: On the skin, this product may cause severe burns. Contact with eyes may cause redness, tearing, swelling, pain, corneal opacity and even blindness. Exposure to high concentrations may cause severe damage and ulceration of the esophageal mucosa and gastrointestinal tract. May cause skin sensitization. Contains crystalline silica. Prolonged exposure to respirable crystalline silica may aggravate diseases of the respiratory system and lungs, and cause silicosis. The effects of silicosis may continue to develop even after exposure has ended and are irreversible. The progression of pulmonary fibrosis can also lead to the development of lung cancer.

Aspiration hazard	N/A
Skin corrosion - Skin irritation	Yes



Safety data sheet

Portland cement concrete

Serious eye damage - Eye irritation	Yes
Skin sensitization	Yes
Respiratory sensitization	N/A
Specific target organ toxicity - single exposure	N/A
Specific target organ toxicity - single exposure Category 3 Narcotic effects	N/A
Specific target organ toxicity - single exposure Category 3 Respiratory tract irritation	N/A
Specific target organ toxicity - repeated exposure	Yes

No	CAS No:	Common names and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction
1	65997-15-1	Portland cement	Not listed	A4	No effect demonstrated.	No effect demonstrated.
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	1	A1	No effect demonstrated.	No effect demonstrated.

Classification of carcinogenicity according to IARC (International Agency for Research on Cancer)

Group 1: carcinogenic agent (sometimes called proven carcinogen or definite carcinogen).

Group 2A: probably carcinogenic agent.

Group 2B: agent may be carcinogenic (sometimes called a possible carcinogen).

Group 3: agent unclassifiable as to carcinogenicity.

Group 4: agent probably not carcinogenic.

Carcinogenicity classification according to ACGIH (American Conference of Governmental Industrial Hygienists)

Group A1: confirmed human carcinogen.

Group A2: suspected human carcinogen.

Group A3: confirmed animal carcinogen with unknown relevance to humans.

Group A4: not classifiable as a human carcinogen.

Group A5: not presumed to be carcinogenic to humans.

12. Ecological information

Ecotoxicity

No	CAS No:	Common names and synonyms	Ecotoxicity aquatic short-term	Ecotoxicity aquatic long term	Ecotoxicity terrestrial
1	65997-15-1	Portland cement	No effect known harmful on the aquatic organisms.	No effect known harmful on the aquatic organisms.	No effect known harmful on the environment.
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	No effect known harmful on the aquatic organisms.	No effect known harmful on the aquatic organisms.	No effect known harmful on the environment.



Safety data sheet

Portland cement concrete

Persistence, Bioaccumulative Potential and other adverse effects

No	CAS No:	Common names and synonyms	Persistent	Bio-accumulation	Toxicity
1	65997-15-1	Portland cement	Yes	No	Yes
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	Yes	No	No

Degradation: N.D.

Mobility in soil: N.D.

13. Disposal considerations

Disposal method: It is important to minimize, if not avoid, the generation of waste. Dispose of according to federal, provincial and municipal regulations. Dispose of surplus and non-recyclable products through an authorized specialist company. Care should be taken when handling empty containers that have not been cleaned or rinsed.

14. Transport information

	TMD	DOT	IMDG	IATA
UN number				
Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class(es)				
Packaging group				

Canada - PIU

Not applicable

United States - Reportable quantity (RQ)

Not applicable

Carriage in bulk (as defined in Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78 Convention) and in the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)): N/A

Marine pollutant: No

Limited quantity exemptions: Not applicable

Other exemptions: Not applicable

Special precautions: Not applicable



Safety data sheet

Portland cement concrete

15. Regulatory information

Canada

No	CAS No:	Common names and synonyms	LIS	LES	NPRI
1	65997-15-1	Portland cement	X		
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	X		

United States

No	CAS No:	Common names and synonyms	TSCA	PROP-65	RTK
1	65997-15-1	Portland cement	X		X
2	14808-60-7	Crystalline silica. Crystalline silicon dioxide. Quartz	X	X	X
3	18450-29-9	Chromium (VI)	X	X	X

The product classification and SDS have been prepared in accordance with the GDPR and HazCom 2012.

This product may contain traces of Chromium (VI) compounds.

16. Other information

Date: 2024-06-17

Version: 1

Notice to the reader: The manufacturer declares that the information contained in this data sheet has been prepared from data, information and warnings obtained from government sites and/or raw material suppliers. The manufacturer has no control over the content of this information and fully reports all information it has on the product's components at the time of manufacture. The manufacturer assumes no responsibility for the accuracy of the information provided. Although certain warnings are contained in this data sheet, we do not guarantee that these are the only hazards that may exist and caution the user accordingly. It is the user's responsibility to ensure that the product used is suitable for the intended use. The manufacturer assumes no responsibility for any damage, loss or injury to persons, property or of any nature whatsoever which may arise or result from the improper, negligent, inappropriate, or abusive use or handling of the product, or from failure to take due note of the information contained in this data sheet.