

Material Safety Data Sheet

Section 1: Product and Company Information

Product Name: Canal Block Products

Product Identifiers: Concrete Block

Manufacturer: Canal Block
3562 Nugent Road
Port Colborne ON L3K 5V4

Information Telephone Number: 905-734-9094 (8am to 4:30 pm EST)

Product Use: Concrete block is used in a wide variety of applications in buildings and civil engineering projects

Section 2: Composition/Information on Ingredients

Component	Percent (By Weight)	CAS Number	OSHA PEL – TWA (mg/m ³)	ACGIH TLV-TWA (mg/m ³)	LD ₅₀ (mouth, oral)	LC ₅₀
Crystalline Silica	0-90	14808-60-7	[(10)/(%SiO ₂ +2)](R); [(30)/(%SiO ₂ +2)](T)	0.05 (R)	NA	NA
Calcium Hydroxide	15-25	1305-62-0	15(T); 5 (R)	5 (T)	7300 mg/kg	NA
Portland Cement *	0-10	65997-15-1	15(T); 5 (R)	10 (R)	NA	NA
Particulate Not Otherwise Regulated	-	NA	15(T); 5 (R)	10 (T); 3 (R)	NA	NA

Note: Exposure limits for components noted with an * contain no asbestos and <1% crystalline silica.

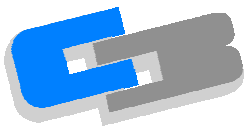
Concrete is a mixture of gravel or rock, sand, Portland cement and water. It may also contain fly ash, slag, silica fume, calcined clay, fibres (metallic or organic) and colour pigment.

Concrete contains cement, which is made from materials mined from the earth and is processed using energy provided by fuels. Trace amounts of chemicals may be detected during chemical analysis. For example, cement may contain trace amounts of calcium oxide (also known as free lime or quick lime), free magnesium oxide, potassium and sodium sulfate compounds, chromium compounds, nickel compounds, and other trace compounds.

Section 3: Hazard Identification

	WARNING	 Eye Protection	 Respiratory Protection
	Toxic – Harmful by Inhalation (Contains crystalline silica). Use proper engineering controls, work practices, and personal protective equipment to prevent exposure to wet or dry product. Read MSDS for details.	 Gloves	

Emergency Overview: Concrete products vary in size, shape and colour, depending on final use. They are not combustible or explosive. Concrete products in their intact state will not release airborne dust, but dust can be produced during cutting, drilling, grinding, chasing and other machining of the product. A single, short-term exposure to concrete dust presents little or no hazard

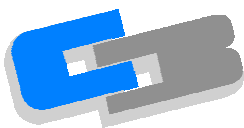


Potential Health Effects:

- Eye Contact:** Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of concrete dust can cause moderate eye irritation and abrasion. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.
- Skin Contact:** Concrete dust may cause dry skin, discomfort, irritation and dermatitis.
- Dermatitis: Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. 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 dust such as abrasion.
- Inhalation (acute:)** Breathing dust may cause nose, throat or lung irritation, including choking, depending on the degree of exposure.
- Inhalation (chronic:)** Risk of injury depends on duration and level of exposure.
- Silicosis: This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. *See Note to Physicians in Section 4 for further information.*
- Carcinogenicity: Concrete is not listed as a carcinogen by IARC or NTP; however, concrete contains trace amounts of crystalline silica which is classified by IARC and TP as known human carcinogens.
- Autoimmune Disease: Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin) systemic Lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys.
- Tuberculosis: Silicosis increases the risk of tuberculosis.
- Renal Disease: Some studies show and increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.
- Ingestion:** Do not ingest concrete. Although ingestion of small quantities of concrete is not known to be harmful, large quantities can cause distress to the digestive tract.
- Medical Conditions Aggravated by Exposure:** Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) can be aggravated by exposure.

Section 4: First Aid Measures

- Eye Contact:** Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for abrasions and burns.
- Skin Contact:** Wash with cool water and a pH neutral soap or a mild skin detergent. Seek medical attention for rash, irritation, dermatitis.
- Inhalation:** Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
- Ingestion:** Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control center immediately.



Note to Physician:

The three types of silicosis include:

Simple chronic silicosis – results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD).

Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis.

Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. 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.

Section 5: Firefighting Measures

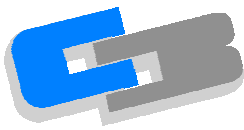
Flashpoint & Method:	Non-combustible	Firefighting Equipment:	Concrete products do not pose a fire-related hazard. A SCBA is recommended to limit exposures to combustion products when fighting any fire.
General Hazard:	Avoid breathing dust		
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.	Combustion Products:	None

Section 6: Accidental Release Measures:

General:	Place spilled material into a container. Avoid actions that cause the concrete dust to become airborne. Avoid inhalation of concrete dust. Wear appropriate protective equipment as described in Section 8.
Waste Disposal Method:	Dispose of concrete products according to Federal, Provincial and Local regulations.

Section 7: Handling and Storage

General:	Store concrete products in a secure manner to prevent falling. Ensure adequate load-bearing capacity of ground, floors or platforms when placing or storing concrete products. Concrete products are heavy and pose risks such as sprains and strains to the back, arms, shoulders and legs during lifting. Handle with care and use appropriate control measures. Use appropriately rated equipment (such as cranes) and rigging when moving and placing concrete products.		
Usage:	Cutting, crushing or grinding hardened cement, concrete or other crystalline silica-bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression and Personal Protective Equipment (PPE) described in Section 8 below.		
Housekeeping:	Avoid actions that cause the concrete 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 below.		
Storage Temperature:	Unlimited	Storage Pressure:	Unlimited
Clothing:	Promptly remove and launder clothing that is dusty. Thoroughly wash skin after exposure to dust.		



Section 8: Exposure Controls and Personal Protection:

Engineering Controls: Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

Personal Protective Equipment (PPE):

Respiratory Protection: Under ordinary conditions no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.

Eye Protection: Wear ANSI approved glasses or safety goggles when handling concrete products and when involved with activities that generate dust, to prevent contact with eyes. Wearing contact lenses when using concrete products, under dusty conditions, is not recommended.

Skin Protection: Wear gloves when handling concrete products. Remove clothing and protective equipment that becomes dusty and launder before reusing.

Foot Protection: Wear ANSI approved hard-toed safety boots when handling concrete products.

Section 9: Physical and Chemical Properties:

Physical State:	Solid	Evaporation Rate:	NA
Appearance:	Various colours and shapes	pH (in water):	7
Odor:	None	Boiling Point:	None, solid
Vapour Pressure:	NA	Freezing Point:	None, solid
Vapour Density:	NA	Viscosity:	None, solid
Specific Gravity:	2.5	Solubility in Water:	Not Soluble

Section 10: Stability and Reactivity

Stability:	Stable	Hazardous Polymerization:	None.
Incompatibility:	None known.	Hazardous Decomposition:	None.

Section 11 and 12: Toxicological and Ecological Information

For questions regarding toxicological and ecological information refer to contact information in Section 1.

Section 13: Disposal Considerations

Dispose of waste and containers in compliance with applicable Federal, Provincial and Local regulations.

Section 14: Transport Information

This product is not classified as a Hazardous Material under Canadian TDG regulations.

Section 15: Regulatory Information

WHMIS/DSL: Products containing crystalline silica are classified as D2A, E and are subject to WHMIS requirements.

Section 16: Other Information

Abbreviations:

>	Greater than	OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists	PEL	Permissible Exposure Limit
CAS No	Chemical Abstract Service number	pH	Negative log of hydrogen ion
HEPA	High-Efficiency Particulate Air	PPE	Personal Protective Equipment



IARC	International Agency for Research on Cancer	R	Respirable Particulate
LC₅₀	Lethal Concentration	T	Total Particulate
LD₅₀	Lethal Dose	TDG	Transportation of Dangerous Goods
mg/m³	Milligrams per cubic metre	TLV	Threshold Limit Value
NA	Not Applicable	TWA	Time Weighted Average (8 hour
NIOSH	National Institute for Occupational Safety and Health	WHMIS	Workplace Hazardous Materials Information System
NTP	National Toxicology Program		

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