



Safety Data Sheet

Section 01 Identification

Product Identifier	Hydrated Lime High Calcium Hydrated Lime
Other Means of Identification	Hydrated dolomitic lime, Calcium hydroxide, slaked lime, Hydrated calcium oxide
Product Use and Restrictions on Use	Neutralization, flocculation, stabilization, absorption.
Initial Supplier Identifier	ClearTech Industries Inc 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
Prepared By	ClearTech Industries Inc. technical writer
24-Hour Emergency Phone	306.664.2522

Section 02 Hazard Identification

Physical Hazards

This product does not qualify for any physical hazard class under WHMIS 2015

Health Hazards

Skin corrosion / irritation	Category 2
Serious eye damage / eye irritation	Category 1
Carcinogenicity	Category 1
Specific target organ toxicity - single exposure	Category 3
Specific target organ toxicity - repeated exposure	Category 1

Signal Word

Danger

Hazard Statements

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H350 May cause cancer by inhalation
- H372 Causes damage to lungs (silicosis) through inhalation.

Pictograms



Precautionary Statements

Prevention

- 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 affected body parts thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear , respiratory protection., protective clothing, eye protection, face protection

Response

- P303 P352 P332 IF ON SKIN (or hair): Wash with plenty of water. If skin irritation occurs: Get medical advice /
P313 P362 P364 attention. Take off contaminated clothing and wash it before reuse.
- P304 P340 P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON
CENTER or doctor if you feel unwell.
- P305 P351 P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
P310 and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- P308 P313 IF exposed or concerned: Get medical advice or attention.
- P314 Get medical advice or attention if you feel unwell.

Storage

- P403 Store in a well-ventilated place.
- P233 Keep container tightly closed.
- P405 Store locked up.

Disposal

- P501 Dispose of contents / container in accordance with all federal, provincial and / or local regulations including the Canadian Environmental Protection Act.

Hazards Not Otherwise Classified

Not available

Supplemental Information

Not available

Section 03 Composition / Information on Ingredients

Hazardous Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Calcium hydroxide	Hydrated lime	1305-62-0	87-99%
Quartz (SiO ₂)	Crystalline silica, respirable powder	14808-60-7	<1%

Section 04 First-Aid Measures

Description of necessary first-aid measures

- Inhalation** Take precautions to ensure your own safety before attempting a rescue (wear appropriate protective equipment, use the buddy system). Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. If exposed or concerned: Get medical advice / attention.
- Ingestion** Rinse mouth. Get medical advice / attention if you feel unwell or are concerned. If exposed or concerned: Get medical advice / attention.
- Skin contact** Avoid direct contact. Wear chemical protective clothing, if necessary. Take off immediately contaminated clothing, shoes and leather goods. Rinse skin with lukewarm, gently flowing water / shower for 15 to 20 minutes. Get medical advice / attention. Wash contaminated clothing before re-use, or discard. If exposed or concerned: Get medical advice / attention.
- Eye contact** Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed

- Inhalation** May cause respiratory irritation. Prolonged exposure may cause silicosis and lung cancer.
- Ingestion** May cause discomfort or nausea.
- Skin contact** Causes skin irritation.
- Eye contact** Causes serious eye damage.
- Further information** For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

- Suitable extinguishing media** Extinguish fire using extinguishing agents suitable for the surrounding fire.
- Unsuitable extinguishing media** Water jets are not recommended in fires involving chemicals.
- Specific hazards arising from the chemical** Not available
- Special protective equipment for fire-fighters** Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

Section 06 Accidental Release Measures

- Personal Precautions / Protective Equipment / Emergency Procedures** Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area. Do not breathe dust.
- Environmental Precautions** Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
- Methods and Materials for Containment and Cleaning Up** Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labeled containers and cover. Flush area with water.

Section 07 Handling and Storage

- Precautions for Safe Handling** Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Prevent the release of dust into the workplace air.

Conditions for Safe Storage	Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available.
Incompatibilities	Store in a cool, dry area, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible. Acids, such as sulphuric, nitric, hydrochloric, phosphoric, fluosilicic (HFSA), sulphonic, acetic, citric, oxalic, and formic. Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.

Section 08 Exposure Controls and Personal Protection

Exposure limits

Component	Regulation	Type of listing	Value
Crystalline silica respirable powder	ACGIH	TWA	0.025 mg/m ³

Engineering controls

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	A soak hose and eyewash station or emergency shower and eyewash station should be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.

Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection	Where there is potential eye or face exposure, tightly fitting safety goggles and a face shield or a full face respirator or similar protective equipment which protects the wearer's face and eyes are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.
Hand and body protection	Disposable latex or nitrile gloves are recommended to prevent incidental contact. Butyl rubber, neoprene, or PVC skin protection is recommended for extended contact. Leather gloves are not recommended for chemical protection. Refer to manufacturer's specifications for breakthrough times and permeability information; note that breakthrough times and permeability vary with temperature, application and age of material. Continued use of contaminated safety gear or clothing is not recommended; wash before reuse or discard.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. NIOSH respirator recommendations for: Silica, crystalline (as respirable dust): Cristobalite, Quartz, Tridymite, Tripoli Up to: 0.5 mg/m³ (APF = 10) Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators. The following filters may also be used: N99, R99, P99, N100, R100, P100.

Up to: 1.25 mg/m³

(APF = 25) Any supplied-air respirator operated in a continuous-flow mode

(APF = 25) Any powered, air-purifying respirator with a high-efficiency particulate filter

Up to: 2.5 mg/m³

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted N100, R100, or P100 filter.

(APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Up to: 25 mg/m³

(APF = 1000) Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode

Emergency or planned entry into unknown concentrations or IDLH conditions:

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape:

(APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter.

Thermal hazards

Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state	Fine powder
Colour	White
Odour	Sweet, soil-like
Odour threshold	Not applicable

Property

pH	12.45 @ saturation 25 °C
Melting point / freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Non-flammable
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	2.3-2.4 g/cm ³
Solubility	0.165 g / 100 mL water @ 20 °C

Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	540 °C
Viscosity	Not applicable
Specific gravity	Not applicable

Section 10 Stability and Reactivity

Reactivity	Reacts violently with acids.
Stability	This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions	Hazardous polymerization is not known to occur.
Conditions to avoid	Avoid contact with incompatible materials.
Incompatible materials	Acids, such as sulphuric, nitric, hydrochloric, phosphoric, fluosilicic (HFSA), sulphonic, acetic, citric, oxalic, and formic. Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.
Hazardous decomposition products	Not available

Section 11 Toxicological Information

Acute Toxicity (LD50 / LC50 values)

Component	Route	Species	Value	Exposure time
Calcium hydroxide	Oral	Rat	7,340 mg/kg bw	

Toxic Health Effect Summary

Chemical characteristics	No known effects
Skin	Causes skin irritation.
Ingestion	May cause discomfort or nausea.
Inhalation	May cause respiratory irritation. Prolonged exposure may cause silicosis and lung cancer.
Eye contact	Causes serious eye damage. Crystalline silica dust is inert. If it enters the lungs, the body has no way of metabolising it or removing it.
Sensitization	This product and its components at their listed concentration have no known sensitizing effects.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	ACGIH has classified Silica dust, crystalline, in the form of quartz or cristobalite as category A1 - Confirmed human carcinogen.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	May cause silicosis with prolonged exposure.
Aspiration hazard	Not available
Synergistic materials	Not available

Section 12 Ecological Information

Ecotoxicity

Component	Type	Species	Value	Exposure Time
Calcium hydroxide	LC50	Fish	50.6 mg/L	96 hours
	EC50	Freshwater invertebrates	49.1 mg/L	48 hours
	EC50	Freshwater algae	184.57 mg/L	72 hours

Biodegradability	The domestic substance list categorizes all of the components of this product as persistent.
Bioaccumulation	The domestic substance list categorizes all of the components of this product as non-bioaccumulative.
Mobility	This product is water soluble, is not predicted to adsorb to soil and may contaminate ground water.
Other adverse effects	Not available

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	Not available
UN proper shipping name and description	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special provisions
Transport in bulk	ERAP index: not available
Additional information	MARPOL 73/78 and IBC Code: This product is not listed in Chapter 17 of the IBC Code. Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

Section 15 Regulatory Information.

NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

All components of this product appear on the domestic substance list.

Section 16 Other Information

Date of latest revision: July 09, 2020

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) TOXNET
- 3) eChemPortal
- 4) ECHA
- 5) Transportation of Dangerous Goods Canada
- 6) HSDB
- 7) PAN