



MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY INFORMATION		
Product Name: LIMESTONE	WHMIS – CLASSIFICATION: D2A: MATERIALS CAUSING OTHER TOXIC EFFECTS	
MANUFACTURER'S AND SUPPLIER'S NAME:		
GRAYMONT (NB) INC	4634, Route 880, Havelock, New Brunswick, E4Z 5K8.	
GRAYMONT MATERIALS (NY) INC.	111, Quarry Road, Plattsburg, New York, 12901	
GRAYMONT (PA) INC.	965, East College avenue, Pleasant Gap, PA 16823	
GRAYMONT (PORTNEUF) INC.	595, boul. Dussault, St-Marc des Carrières (Qc), G0A 4B0	
GRAYMONT (QC) INC.	25, rue De Lauzon, Boucherville (Québec), J4B 1E7.	
GRAYMONT (WESTERN CANADA) INC.	190 – 3025, 12 Street N.E., Calgary, Alberta, T2E 7J2	
GRAYMONT (WESTERN US) INC.	3950 South, 700 East, Suite 301, Salt Lake City, Utah 84107	
EMERGENCY TEL. No.: (613) 996 – 6666 CANUTEC (Canada) (800) 424 – 9300 CHEMTREC (US)		
Chemical Name Calcium Carbonate	Chemical Family Alkaline earth	Chemical Formula Complex mixture - mostly CaCO₃
Molecular Weight CaCO₃ = 100.09	Trade Name and Synonyms Limestone, Calcium Carbonate, Calcite, Aragonite, Fluxstone, Fine Grind Limestone.	Material Use Neutralization, desulphurization, flux, aggregates, mineral filler, liming, lime, feed ingredient,

SECTION II - COMPOSITION AND INFORMATION ON INGREDIENTS								
Hazardous Ingredients	Approximate Concentration	C.A.S. Number	Exposure limits (mg/m ³)					
			OSHA PEL	ACGIH TLV	RSST VEMP	MSHA PEL (Note 2)	NIOSH REL	NIOSH IDLH
(Complex Mixture)	(% by weight)		(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 10/40h	
Calcium Carbonate (Limestone)	60 to 100	471-34-1 (1317-65-3)	15 (tot dust) 5 (resp dust)	10 (Note3) (total dust)	10 (Note3) (total dust)	15 (tot dust) 5 (resp dust)	10 (tot dust) 5 (resp dust)	N/A
Crystalline Silica, Quartz	0.1 to 1	14808-60-7	10/(%SiO₂)+2 respirable silica dust	0.025 respirable silica dust	0.1 respirable silica dust	10/(%SiO₂)+2 respirable silica dust	0.05 respirable free silica	50
Crystalline Silica, Quartz	0 to 0.1 (Note 1)	14808-60-7	10/(%SiO₂)+2 respirable silica dust	0.025 respirable silica dust	0.1 (respirable silica dust)	10/(%SiO₂)+2 respirable silica dust	0.05 (respirable free silica)	50

(Note 1): Concentration of crystalline silica in a series of limestone products will vary from source to source. It was not detected on some samples (< 0.1% w/w). Therefore two ranges are being disclosed. (Note 2): ACGIH TLV Version 1973 has been adopted by the Mine Safety Health Administration (MSHA) as the regulatory Exposure Standard. (Note 3): The value is for particulate matter containing no asbestos and less than 1 % crystalline silica. (Note 4): ACGIH issued a new Notice of Intended Change (NIC) for calcium carbonate, in which it would "Withdraw Documentation and adopted TLV" due to insufficient data.

SECTION III - PHYSICAL AND CHEMICAL DATA				
Physical State Gas <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input checked="" type="checkbox"/>	Odor and Appearance Odorless – White to gray solid or powder		Odor Threshold (p.p.m.) Not applicable	Specific Gravity 2.65 – 2.75
Vapor Pressure (mm) Not applicable	Vapor Density (Air = 1) Not applicable	Evaporation Rate Not applicable	Boiling Point (°C) Not applicable	Melting Point (°C) Not applicable
Solubility in Water (20°C) 0.001 % by weight	Volatiles (% by volume) Not applicable	pH (25 °C) Sat. soln CaCO₃ 9.4	Bulk Density (kg/m ³) 900 - 1900	Coefficient of water/oil distribution Not applicable

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
Flammability Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, under which conditions?			
Extinguishing Media Limestone does not burn. Use extinguishing media appropriate to surrounding fire conditions.			
Special Fire Fighting Procedures Limestone is generally non-flammable, but ignites on contact with fluorine. Wear adequate personal protection to prevent contact with material or its combustion products. Firefighters should use self-contained NIOSH approved breathing apparatus with full face piece to protect against the products of combustion.			
Flash point (°C) and Method Not applicable	Upper flammable limit (% by volume) Not applicable	Lower flammable limit (% by volume) Not applicable	
Auto Ignition Temperature (°C) Not applicable	TDG Flammability Classification Non-flammable	Hazardous Combustion Products None	
Dangerous Combustion Products None			
EXPLOSION DATA			
Sensitivity to Chemical Impact Not applicable	Rate of Burning Not applicable	Explosive Power Not applicable	Sensitivity to Static Discharge Not applicable

SECTION V - REACTIVITY DATA		
Chemical Stability	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If no, under which conditions? Decomposes at 870 °C to form carbon dioxide and calcium oxide.
Incompatibility to other substances	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, which ones? Fluorine, magnesium, aluminum, silicon, hydrogen, mercury, aluminum sulfate, ammonium salts, acids (violent reaction with generating heat and possible explosion in confined area).
Reactivity	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, under which conditions? Limestone is a very stable chemical substance. Decomposition does not occur at normal temperatures (inferior to 600°C). Reacts chemically with strong acids to form calcium based compounds and to liberate carbon dioxide.
Hazardous Decomposition Products	Decomposition at 870°C will produce calcium oxide and carbon dioxide.	
Hazardous Polymerization Products	Will not occur.	

SECTION VI - TOXICOLOGICAL PROPERTIES		
Route of Entry	<input checked="" type="checkbox"/> Skin Contact <input type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Acute Inhalation <input type="checkbox"/> Chronic Inhalation <input checked="" type="checkbox"/> Ingestion	
Effects of Acute Exposure to Product:	Skin May cause dryness and irritation. Irritation: Skin-Rabbit-500 mg/ 24 h – Moderate. Eyes May cause eye irritation with discomfort or pain, local redness and swelling of the conjunctiva. Irritation: Eye-Rabbit-750 µg/ 24 h – Severe. Inhalation If inhaled in form of dust, may cause respiratory tract, irritation / inflammation. Exposure may cause coughing and sneezing. Large amounts may cause chemical pneumonitis. Ingestion Cause gastro-intestinal irritation. If ingested in large quantities may cause nausea, constipation and hypercalcaemia, hemorrhage	
Effects of Chronic Exposure to Product:	No signs or symptoms of chronic exposure have been reported. This product may contain trace amounts of crystalline silica. Excessive inhalation of respirable crystalline silica dust may result in respiratory disease, including silicosis, pneumoconiosis and pulmonary fibrosis.	
LD ₅₀ of Product (Specify Species and Route)	Irritancy of Product	Exposure limits of Product
6450 mg/kg (Rat, oral)	Eyes	Unavailable
LC ₅₀ of Product (Specify Species)	Sensitization to Product	Synergistic materials
Unavailable	None	None reported

SECTION VI - TOXICOLOGICAL PROPERTIES (Cont'd)

Carcinogenicity Reproductive effects Tératogenicity Mutagenicity

Limestone is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP or IARC. It may, however, contain trace amounts of Crystalline Silica listed carcinogens by these organizations.

Crystalline Silica, which inhaled in the form of quartz or crystobalite from occupational sources, is classified by IARC as (Group 1) carcinogenic to humans.

Silica, crystalline (Airborne particles of respirable size) is regulated under California's Safe Drinking Water and Toxic Enforcement Act of 1986. (Proposition 65).

NIOSH considers crystalline silica to be potential occupational carcinogen as defined by the OSHA carcinogen policy [29 CFR 1990].

NTP lists respirable Crystalline Silica as known to be human carcinogens based on sufficient evidence of carcinogenicity in humans.

ACGIH lists respirable Crystalline Silica (quartz) as suspected human carcinogen (A-2).

RSST lists respirable Crystalline Silica (quartz) as suspected human carcinogen.

SECTION VII - PREVENTIVE MEASURES

Personal Protective Equipment (PPE) **Wear clean, dry gloves, full length pants over boots, long sleeved shirt buttoned at the neck, head protection and approved eye protection selected for the working conditions.**

Gloves (Specify) Gauntlets Cuff style	Respiratory (Specify) NIOSH approved (N/R/P95) dust respirator	Eyes (Specify) ANSI, CSA or ASTM approved safety glasses with side shields. Tight fitting dust goggles should be worn when excessive (visible) dust conditions are present.	Footwear (Specify) Usual protection
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Clothing (Specify) Fully covering skin	Other (Specify) Evaluate degree of exposure and use PPE if necessary.
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Engineering Controls (e.g. ventilation, enclosed process, specify)
Enclose dust sources; use exhaust ventilation (dust collector) or other engineering controls at handling points to keep airborne levels below recommended exposure limits.

Leak and Spill Procedure
Limit access to trained personnel. Sweep up and place in container. Use industrial vacuums for large spills. Avoid raising dust. Ventilate area.

SECTION VII - PREVENTIVE MEASURES (Cont'd)

Waste Disposal

Transport to disposal area or bury. Review Federal, Provincial and local Environmental regulations.

Handling Procedures and Equipment

Avoid skin and eye contact. Minimize dust generation. Wear protective goggles and in cases of insufficient ventilation, use anti-dust mask. An eye wash station should be readily available where this is used.

Storage Requirements

Keep tightly closed containers in a cool, dry and well ventilated area, away from acids.

Special Shipment Information

Limestone is neither regulated by the Transportation of Dangerous Goods (TDG) Regulations (Canada) nor by the Hazardous Materials Regulations (USA).

SECTION VIII - FIRST AID MEASURES

Skin

Carefully and gently brush the contaminated body surfaces in order to remove all traces of Limestone. Use a brush, cloth or gloves. Remove all Limestone-contaminated clothing. Rinse contaminated area with lukewarm water for 15 to 20 minutes. If irritation occurs or persists seek medical attention.

Eyes

Immediately rinse contaminated eye(s) with gently running lukewarm water (saline solution is preferred) for 15 to 20 minutes. In the case of an embedded particle in the eye, or if irritation occurs or persists, consult a physician.

Inhalation

Move source of dust or move victim to fresh air. Obtain medical attention immediately. If victim does not breathe, give artificial respiration. Contact a physician immediately.

Ingestion

If victim is conscious, wash out mouth with water. Have conscious person drink several glasses of water to dilute. Induce vomiting. Contact a physician immediately. Never give anything by mouth to an unconscious or convulsing person.

General Advise

Consult a physician for all exposures except minor instances of inhalation.

SECTION IX - REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (**SARA Title III**). / The Emergency Planning and “Community Right-to-Know” Act (**EPCRA**). / Comprehensive Environmental Response, Compensation and Liability Act (**CERCLA**). / Resource Conservation and Recovery Act (**RCRA**).

Component Limestone has been reviewed against the following regulatory listings:

- **SARA Section 302 – Emergency Planning Notification. Extremely Hazardous Substances (EHS) List and Threshold Planning Quantity (TPQ). (40 CFR, Part 355, Section 30): Not listed.**
- **SARA Section 304 – Emergency Release Notification. Extremely Hazardous Substances (EHS) and Reportable Quantity (RQ) List. (40 CFR, Part 355, Section 40): Not listed.**
- **SARA Section 311/312 – Hazard Categories (40 CFR, Part 370): This product is not listed under CFR 1910.1200 (OSHA Hazard Communication).**
- **SARA Section 313 – Toxics Release Inventory (TRI). Toxic Chemical List (40 CFR, Part 372): Not listed.**
- **CERCLA – Hazardous Substance (40 CFR, Part 302): Not listed in Table 302.4.**
- **RCRA – Hazardous Waste Number (40 CFR, Part 261, Subpart D): Not listed.**
- **RCRA – Hazardous Waste Classification (40 CFR, Part 261, Subpart C): Not classified.**

CWA 311. – Clean Water Act List of Hazardous Substances.

Limestone does not appear on the Clean Water Act (CWA) list of hazardous substances.

California Proposition 65.

Component Limestone does not appear on the above regulatory listing. This product may contain small amounts of crystalline silica. Silica, crystalline (Airborne particles of respirable size) is regulated under California’s Safe Drinking Water and Toxic Enforcement Act of 1986. (Proposition 65)

Transportation – Hazardous Materials Regulations (USA) & Transportation of Dangerous Goods (TDG) Regulations (Can).

Limestone does not appear on the above regulatory listings

Toxic Substances Control Act (TSCA).

All naturally occurring components of this product are automatically included in the USEPA TSCA Inventory List per 40 CFR 710.4 (b). All other components are one the USEPA TSCA Inventory List. Limestone is exempt from reporting under the inventory update rule.

Canadian Environmental Protection Act (CEPA) – Substances Lists (DSL/NDSL).

Limestone appears on the Non-Domestic Substances List (NDSL). Calcium Carbonate appears on the Domestic Substances List (DSL).

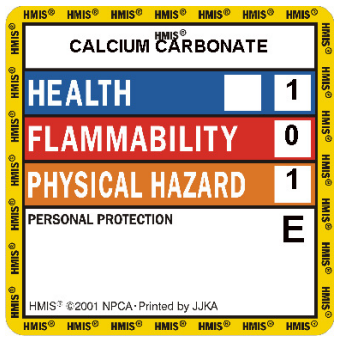
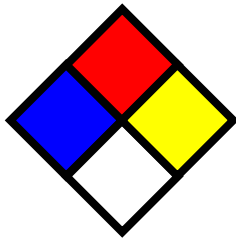
ANSI/NSF 60 - Drinking Water Treatment Additives.

Limestone has been investigated with respect to elements identified by EPA as toxic and it has been classified for use in direct contact with drinking water. (in accordance with Standard ANSI/NSF 60). For a list of classified products, refer to Underwriters Laboratories Inc.’s Online Certifications Directory.

FDA - U.S. Food and Drug Administration, Department of Health and Human Services.


Limestone has been determined as “Generally Recognized As Safe” (GRAS) by FDA. See 21CFR184.1409. (CFR Title 21 Part 184 - - Direct food substances affirmed as generally recognized as safe).

SECTION X - OTHER INFORMATION

<p>Hazardous Materials Identification System (U.S.)</p>		<p>National Fire Protection Association (U.S.)</p> <p>Health Hazard</p> <p>NFPA has not assigned a rating to Limestone.</p>	<p>Fire Hazard</p>  <p>Instability / Thermal Hazard</p> <p>Specific hazard</p>
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WHMIS Classification:
 "D2A" Materials causing other toxic effects.

Symbol:



Additional Information/Comments:
 The technical data contained herein is given as information only and is believed to be reliable.
GRAYMONT makes no guarantee of results and assumes no obligation or liability in connection therewith.

Sources Used:
 NFPA, NLA, TDG, CSST, RSST, (LSRO-FASEB), Hazardous Products Act, Environment Canada, Enviroguide, OSHA, ACGIH, IARC, NIOSH, CFR, NTP, HSDB, EPA SRS, Chemistry and Technology of Lime and Limestone (John Wiley and Sons, Inc.), Lime and Limestone (WILEY-VCH).

SECTION XI - PREPARATION INFORMATION

Prepared by:	Telephone number:	Date :
GRAYMONT (QC) INC. Technical Services	(450) 449-2262	January 2008

An electronic version of this MSDS is available at: www.graymont.com under the PRODUCTS section.