



# MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY INFORMATION		
Product Name: <b>Precipitated Calcium Carbonate</b>	WHMIS – CLASSIFICATION: <b>Not WHMIS Regulated</b>	
MANUFACTURER'S AND SUPPLIER'S NAME:		
<b>GRAYMONT (WESTERN US) INC.</b> 3950 South, 700 East, Suite 301, Salt Lake City, Utah 84107		
EMERGENCY TEL. No.: <b>(613) 996 – 6666 CANUTEC (Canada)</b> <b>(800) 424 – 9300 CHEMTREC (US)</b>		
Chemical Name <b>Calcium Carbonate</b>	Chemical Family <b>Alkaline earth</b>	Chemical Formula <b>CaCO<sub>3</sub></b>
Molecular Weight <b>CaCO<sub>3</sub> = 100.09</b>	Trade Name and Synonyms <b>Calcium Carbonate, Precipitated Calcium Carbonate slurry, PCC, PCC slurry, Calcite PCC, Aragonite PCC.</b>	Material Use <b>Mineral filler</b>

SECTION II - COMPOSITION AND INFORMATION ON INGREDIENTS									
Hazardous Ingredients	Approximate Concentration	C.A.S. Number	Exposure limits (mg/m <sup>3</sup> )						
			OSHA PEL	ACGIH TLV	RSST VEMP	MSHA PEL	NIOSH REL	NIOSH IDLH	
	(% by weight)		(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 10/40h		
<b>Calcium Carbonate</b>	<b>90 to 100 (Dry Basis)</b>	<b>471-34-1</b>	<b>15 total dust 5 respirable dust</b>	<b>TLV withdrawn</b>	<b>10 total dust</b>	<b>10 total dust</b>	<b>10 total dust</b>	<b>10 total dust 5 respirable dust</b>	<b>N/A</b>

**(Note 1):** ACGIH TLV Version 1973 has been adopted by the Mine Safety Health Administration (MSHA) as the regulatory Exposure Standard. **(Note 2)** The value is for particulate matter containing no asbestos and less than 1 % crystalline silica. **(Note 3):** ACGIH Documentation and adopted TLV for calcium carbonate was withdrawn in 2007 due to insufficient data.

<b>SECTION III - PHYSICAL AND CHEMICAL PROPERTIES</b>				
Physical State Gas <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input checked="" type="checkbox"/>	Odor and Appearance <b>Odorless – White slurry, consistency of cream. Dries to a fine white crystalline powder.</b>		Odor Threshold (p.p.m.) <b>Not applicable</b>	Specific Gravity <b>2.68 – 2.76</b>
Vapor Pressure (mm) <b>Not applicable</b>	Vapor Density (Air = 1) <b>Not applicable</b>	Evaporation Rate <b>Not applicable</b>	Boiling Point (°C) <b>Not applicable</b>	Freezing Point (°C) <b>Not applicable</b>
Solubility in Water (20°C) <b>0.00066g/100g</b>	Volatiles (% by volume) <b>Not applicable</b>	pH (25 °C) <b>8.0 – 9.2</b>	Density (kg/m <sup>3</sup> ) <b>900 - 1900</b>	Coefficient of water/oil distribution <b>Not applicable</b>

<b>SECTION IV - FIRE AND EXPLOSION HAZARD DATA</b>			
Flammability Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, under which conditions?			
Extinguishing Media <b>Calcium Carbonate does not burn. Use extinguishing media appropriate to surrounding fire conditions.</b>			
Special Fire Fighting Procedures <b>Calcium Carbonate 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.</b>			
Flash point (°C) and Method <b>Not applicable</b>	Upper flammable limit (% by volume) <b>Not applicable</b>	Lower flammable limit (% by volume) <b>Not applicable</b>	
Auto Ignition Temperature (°C) <b>Not applicable</b>	TDG Flammability Classification <b>Non-flammable</b>	Hazardous Combustion Products <b>None</b>	
Dangerous Combustion Products <b>None</b>			
EXPLOSION DATA			
Sensitivity to Chemical Impact <b>Not applicable</b>	Rate of Burning <b>Not applicable</b>	Explosive Power <b>Not applicable</b>	Sensitivity to Static Discharge <b>Not applicable</b>

<b>SECTION V - REACTIVITY DATA</b>		
Chemical Stability Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If no, under which conditions?	<b>Calcium Carbonate is a very stable chemical substance Decomposes at 870 °C to form carbon dioxide and calcium oxide.</b>
Incompatibility to other substances Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, which ones?	<b>Fluorine, magnesium, aluminum, silicon, hydrogen, mercury, aluminum sulfate, ammonium salts, acids.</b>
Reactivity Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, under which conditions?	<b>Calcium Carbonate 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.</b>
Hazardous Decomposition Products	<b>Decomposition at 870°C will produce calcium oxide and carbon dioxide.</b>	
Hazardous Polymerization Products	<b>Will not occur.</b>	

<b>SECTION VI - TOXICOLOGICAL INFORMATION</b>					
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	<b>May cause skin irritation. Skin Irritation Data: Skin-Rabbit-500 mg/ 24 h – Moderate.</b>				
Eyes	<b>May cause eye irritation with discomfort or pain, local redness and swelling of the conjunctiva. Eye Irritation Data: Eye-Rabbit-750 µg/ 24 h – Severe.</b>				
Inhalation	<b>If inhaled in form of dust, may cause respiratory tract, irritation / inflammation. Exposure may cause coughing and sneezing. Large amounts may cause chemical pneumonitis.</b>				
Ingestion	<b>Cause gastro-intestinal irritation. If ingested in large quantities may cause nausea, constipation and hypercalcaemia, hemorrhage.</b>				
Effects of Chronic Exposure to Product:					
<b>No signs or symptoms of chronic exposure have been reported.</b>					
LD <sub>50</sub> of Product (Specify Species and Route)	Irritancy of Product		Exposure limits of Product		
<b>6450 mg/kg (Rat, Oral)</b>	<b>Eyes</b>		<b>Unavailable</b>		
LC <sub>50</sub> of Product (Specify Species)	Sensitization to Product		Synergistic materials		
<b>Unavailable</b>	<b>None</b>		<b>None reported</b>		
<input checked="" type="checkbox"/> Carcinogenicity <input type="checkbox"/> Reproductive effects <input type="checkbox"/> Tératogenicity <input type="checkbox"/> Mutagenicity					
<b>No carcinogenicity data available for this product. Calcium Carbonate is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP, DFG, RSST or IARC.</b>					

<b>SECTION VII - PREVENTIVE MEASURES</b>	
Personal Protective Equipment (PPE)	<b>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.</b>
Gloves (Specify)	<b>Gauntlets Cuff style.</b>
Respiratory (Specify)	<p><b>Respirator Recommendations for Calcium Carbonate are not available. Use a NIOSH approved anti-dust mask for particulate concentration exceeding the occupational exposure limit.</b></p> <p><b>NIOSH approved respirator.</b>  <b>Up to 50 mg/m<sup>3</sup>: (APF = 5) Any particulate respirator equipped with an N/R/P95, N/R/P99 or N/R/P100 filter and quarter-mask respirator.</b>  <b>Up to 100 mg/m<sup>3</sup>: (APF = 10) Any particulate respirator equipped with an N/R/P95, N/R/P99 or N/R/P100 filter and half-mask respirator.</b>  <b>Up to 250 mg/m<sup>3</sup>: (APF = 25). Any powered, air purifying respirator equipped with an N/R/P95, N/R/P99 or N/R/P100 filter or supplied-air respirator with elastomeric half-mask / facepiece.</b></p>
Eyes (Specify)	<b>ANSI, CSA or ASTM approved safety glasses with side shields. Tight fitting dust goggles should be worn when excessive (visible) dust conditions are present. Do not wear contact lenses without tight fitting goggles when handling this chemical.</b>
Footwear (Specify)	<b>Usual protection</b>
Clothing (Specify)	<b>Fully covering skin.</b>
Other (Specify)	<b>Evaluate degree of exposure and use PPE if necessary.</b>
Engineering Controls (e.g. ventilation, enclosed process, specify)	<b>Enclose dust sources; use exhaust ventilation (dust collector) or other engineering controls at handling points to keep airborne levels below recommended exposure limits.</b>
Waste Disposal	<b>Transport to disposal area or bury. Review Federal, Provincial and local Environmental regulations.</b>
Handling Procedures and Equipment	<b>Avoid skin and eye contact. Minimize dust generation. Wear protective goggles and in cases of insufficient ventilation, use NIOSH approved anti-dust mask. An eye wash station should be readily available where this product is used.</b>
Storage Requirements	<b>Keep tightly closed containers in a cool, dry and well ventilated area, away from acids.</b>
Special Shipment Information	<b>Calcium Carbonate is neither regulated by the Transportation of Dangerous Goods (TDG) Regulations (Canada) nor by the Hazardous Materials Regulations (USA).</b>

**SECTION VIII - FIRST AID MEASURES**

## Skin

**Carefully and gently brush the contaminated body surfaces in order to remove all traces of Calcium Carbonate. Use a brush, cloth or gloves. Remove all Calcium Carbonate-contaminated clothing. Rinse contaminated area with lukewarm water. 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 Calcium Carbonate 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.

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

California Proposition 65.

**Component Calcium Carbonate does not appear on the above regulatory listing.**

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

**Calcium Carbonate 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 listed on the USEPA TSCA Chemical Substances Inventory. Calcium Carbonate is subject to inventory update reporting (IUR).**

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

**Calcium Carbonate is specified on the public Portion of the Domestic Substances List (DSL).**

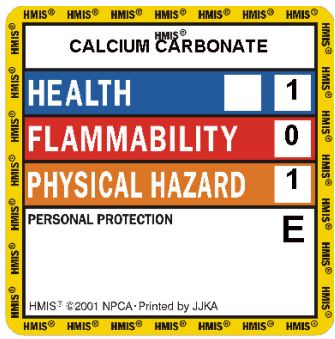
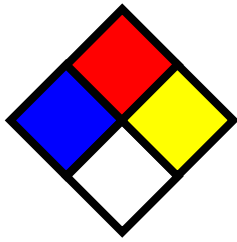
ANSI/NSF 60 - Drinking Water Treatment Additives.

**Not applicable**

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

**Calcium Carbonate has been determined as “Generally Recognized As Safe” (GRAS) by FDA. See 21CFR184.1191. (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.) NFPA 704</p> <p>Health Hazard</p> <p>NFPA has not assigned a rating to Calcium Carbonate.</p>	<p>Fire Hazard</p>  <p>Instability / Thermal Hazard</p> <p>Specific hazard</p>
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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, RTECS, DFG, 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 :
<p><b>GRAYMONT (QC) INC.</b> Quality Assurance &amp; Technical Services</p>	<p>(450) 449-2262</p>	<p>September 2009</p>

An electronic version of this MSDS is available at: [www.graymont.com](http://www.graymont.com) under the PRODUCTS section.