GRAYMONT

MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY INFORMATION

Material Name / Identifier: **DOLOMITIC HYDRATED LIME**	**WHMIS CLASS E : CORROSIVE MATERIAL**

MANUFACTURER'S AND SUPPLIER'S NAME:		EMERGENCY TEL. No
GRAYMONT DOLIME (OH) INC.	21880 West State Route163, Genoa, Ohio 43430-0158	**(800) 537-4489**

Chemical Name	Chemical Family	Chemical Formula
Dolomitic hydrated lime	**Alkaline earth hydroxide**	**Complex mixture - mostly $Ca(OH)_2$ and $Mg(OH)_2$ or MgO**

Molecular Weight	Material Use
$Ca(OH)_2$ = 74.10, $Mg(OH)_2$ = 58.34, MgO = 40.32	**Neutralization, Flocculation, Stabilization, Polishing, Masonry Mortar, Plaster, Stucco, Fresco Paints and Limewash**

PRODUCT NAME	FORMULA	CAS#
BONDCRETE® Mason's Lime	**$CaMg(OH)_4$**	**39445-23-3**
Graymont Dolomitic Hydrated Agricultural Lime	**$Ca(OH)_2MgO$**	**58398-71-3**
Graymont Dolomitic Hydrated Lime	**$Ca(OH)_2MgO$**	**58398-71-3**
Graymont Dolomitic Spray Lime	**$CaMg(OH)_4$**	**39445-23-3**
GRAND PRIZE® Finish Lime	**$Ca(OH)_2MgO$**	**58398-71-3**
HI-MAG-CHEM® Hydrate	**$Ca(OH)_2MgO$**	**58398-71-3**
IVORY® Autoclaved Finish Lime	**$CaMg(OH)_4$**	**39445-23-3**
KEMIDOL® Hydrate	**$Ca(OH)_2MgO$**	**58398-71-3**
KEMIDOL® Superhydrate	**$CaMg(OH)_4$**	**39445-23-3**
LIMOID® Type "N" Hydrate	**$Ca(OH)_2MgO$**	**58398-71-3**
LIMOID® Type "S" Hydrate	**$CaMg(OH)_4$**	**39445-23-3**
MORTASEAL® Autoclaved Mason's Lime	**$CaMg(OH)_4$**	**39445-23-3**
SNOWDRIFT® Autoclaved Finish Lime	**$CaMg(OH)_4$**	**39445-23-3**
SUPER LIMOID® Agricultural Hydrated Lime	**$Ca(OH)_2MgO$**	**58398-71-3**
SUPER LIMOID® Mason's Hydrated Lime Type "S"	**$CaMg(OH)_4$**	**39445-23-3**
SUPER LIMOID® Mason's Hydrated Lime Type "SA"	**$CaMg(OH)_4$**	**39445-23-3**

SECTION II - COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients	Approximate Concentration (% by weight)	C.A.S. Number	Exposure limits (mg/m^3)				
			OSHA PEL	ACGIH TLV	RQMT OEL	NIOSH REL	NIOSH IDLH
(Complex Mixture)			**(TWA) 8/40h**	**(TWA) 8/40h**	**(TWA) 8/40h**	**(TWA) 10/40h**	
Calcium hydroxide	**55 - 60**	**1305-62-0**	**5**	**5**	**5**	**Not available**	**Not available**
Magnesium hydroxide	**0 - 40**	**1309-42-8**	**Not available**	**Not available**	**Not available**	**Not available**	**Not available**
Magnesium Oxide	**0 - 40**	**1309-48-4**	**15**	**10**	**10**	**Not available**	**750**
Crystalline Silica, Quartz	**> 0.1**	**14808-60-7**	**10/(%SiO_2)+2 (respirable silica dust)**	**0.1 (respirable silica dust)**	**0.1 (respirable silica dust)**	**0.05 (respirable free silica)**	**50**

SECTION III - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Odor and Appearance		Odor Threshold (p.p.m.)	Specific Gravity
Gas ☐ Liquid ☐ Solid ☑	**No odor – Fine white powder**		**Not applicable**	**2.2 – 2.6**
Vapor Pressure (mm)	Vapor Density (Air = 1)	Evaporation Rate	Boiling Point (°C)	Freezing Point (°C)
Not applicable	**Not applicable**	**Not applicable**	**Not available**	**Not available**
Solubility in Water (20°C)	Volatiles (% by volume)	pH (25 °C)	Density (kg/m^3)	Coefficient of water/oil distribution
0.1g/100g Sat.soln	**Not applicable**	**Sat. soln $Ca(OH)_2$ 12.45**	**400 - 650**	**Not applicable**

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability If yes, under

Yes ☐ No ☑ which conditions:

Extinguishing Media

Dolomitic Hydrated Lime does not burn. Use extinguishing media appropriate to surrounding fire conditions.

Special Fire Fighting Procedures

Not applicable

SECTION IV - FIRE AND EXPLOSION HAZARD DATA CONTINUED

Flash point (^{o}C) and Method	Upper flammable limit (% by volume)	Lower flammable limit (% by volume)
Not applicable	**Not applicable**	**Not applicable**
Auto Ignition Temperature (°C)	TDG Flammability Classification	Hazardous Combustion Products
Not applicable	**Non-flammable**	**None**

Dangerous Combustion Products	**None**

EXPLOSION DATA

Sensitivity to Chemical Impact	Rate of Burning	Explosive Power	Sensitivity to Static Discharge
Not applicable	**Not applicable**	**Not applicable**	**Not applicable**

SECTION V - REACTIVITY DATA

Chemical Stability Yes ☐ No ☑	If no, under which conditions?	**Absorbs carbon dioxide in the air to form calcium and magnesium carbonate.**
Incompatibility to other substances Yes ☑ No ☐	If so, which ones?	**Boron tri-fluoride, chlorine tri-fluoride, fluorine, hydrogen fluoride, phosphorus pentoxide; and acids (violent reaction with generating heat and possible explosion in confined area).**
Reactivity Yes ☑ No ☐	If so, under which conditions?	**Reacts violently with strong acids. Reacts chemically with acids and many other compounds and chemical elements to form calcium based compounds. Explosive when mixed with nitro organic compounds.**
Hazardous Decomposition Products		**Thermal decomposition at 540^{o}C will produce calcium oxide and water.**
Hazardous Polymerization Products		**Will not occur.**

SECTION VI - TOXICOLOGICAL INFORMATION

Route of Entry

☑ Skin Contact ☐ Skin Absorption ☑ Eye Contact ☑ Acute Inhalation ☐ Chronic Inhalation ☑ Ingestion

Effects of Acute Exposure to Product

Skin **Mucous and skin corrosion, removes natural skin oils.**

SECTION VI - TOXICOLOGICAL INFORMATION CONTINUED

Eyes	**Severe eye irritation, intense watering of the eyes, possible lesions, possible blindness when exposed for prolonged period. Eye-Rabbit-10mg/ 24 h – Severe.**
Inhalation	**If inhaled in form of dust, irritation of breathing passages, cough.**
Ingestion	**If ingested: pain, vomiting blood, diarrhea, collapse, drop in blood pressure (indicates perforation of esophagus or stomach).**
Effects of Chronic Exposure to Product	**Contact dermatitis**

LD_{50} of Product (Specify Species and Route) Not available	Irritancy of Product **Severe to moist tissues**	Exposure limits of Product Not available
LC_{50} of Product (Specify Species) Not available	Sensitization to Product **None**	Synergistic materials **None reported**

☑ Carcinogenicity ☐ Reproductive effects ☐ Tératogenicity ☐ Mutagenicity

Dolomitic Hydrated Lime is not listed on the MSHA, OSHA or IARC lists of carcinogens. However, hydrated lime could contain crystalline silica, which inhaled in the form of quartz or crystobalite from occupational sources, is classified by IARC as (Group 1) carcinogenic to humans.

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)	Respiratory (Specify)	Eyes (Specify)	Footwear (Specify)
Gauntlets Cuff style	**If dust loading exceeds PEL use NIOSH approved filtering anti-dust mask**	**Tight fitting goggles with side shields**	**Resistant to caustics**

Clothing (Specify) **Fully covering skin**	Other (Specify) **Evaluate degree of exposure and use PPE if necessary. After handling lime, employees must shower. If exposed daily, use oil, Vaseline, silicone base creme etc. to protect exposed skin, particularly neck, face and wrists.**

SECTION VII - PREVENTIVE MEASURES CONTINUED

Engineering Controls (e.g. ventilation, enclosed process, specify)

Enclose dust sources; use exhaust ventilation (dust collector) at handling points, keep levels below Max. Concentration Permitted.

Leak and Spill Procedure

Limit access to trained personnel. Use industrial vacuums for large spills. Ventilate area.

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 and safety shower should be readily available where this material or its water dispersions are used.

Storage Requirements

Keep tightly closed containers in a cool, dry and well-ventilated area, away from acids. Keep out of reach of children.

Special Shipment Information

Calcium Hydroxide is neither regulated by the Transportation of Dangerous Goods (TDG) Regulations (Canada) nor 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 lime. Use a brush, cloth or gloves. Remove all lime-contaminated clothing. Rinse contaminated area with lukewarm water for 15 to 20 minutes. Consult a physician if exposed area is large or if irritation persists.

Eyes

Immediately rinse contaminated eye(s) with gently running lukewarm water for 15 to 20 minutes. In all cases, immediately contact 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.

SECTION VIII - FIRST AID MEASURES CONTINUED

Ingestion

If victim is conscious, give 300 ml (10 oz) of water, followed by diluted vinegar (1 part vinegar, 2 parts water) or fruit juice to neutralize the alkali. Do not induce vomiting. Contact a physician immediately.

General Advise

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

SECTION IX - REGULATORY INFORMATION

Regulatory Listings Reviewed:

Each component/ingredient of this product has been reviewed against the following regulatory listings:

- **CERCLA / SARA section 302 - Extremely Hazardous Substance List.**
- **CERCLA / SARA Title III section 304- Hazardous Substance and RQ List.**
- **SARA Title III section 313 - Toxic Chemical List.**

Component Dolomitic Hydrated Lime does not appear on any of the above regulatory listings.

SARA Title III Section 311/312 - Hazard Categories.

This product is regulated under CFR 1910.1200 (OSHA Hazard Communication) as Immediate (Acute) Health Hazards - Corrosive.

California Proposition 65

Component Dolomitic Hydrated Lime 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).

Dolomitic Hydrated Lime does not appear on the above regulatory listings

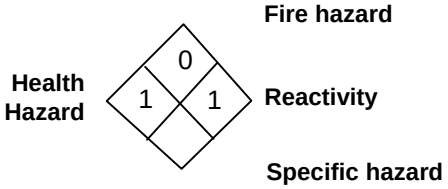
Canadian Environmental Protection Act (CEPA) – Domestic Substances List (DSL).

Dolomitic Hydrated Lime appears on the above regulatory listing.

SECTION X - OTHER INFORMATION

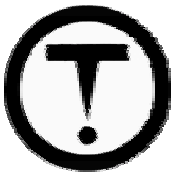
Hazardous materials Identification System		
	Health Risks	①
	Flammability	⓪
	Reactivity	①
	Personal Protection	Ⓔ

National Fire Protection Association (U.S.)



WHMIS Classification: **"E" Corrosive Materials.**	WHMIS Classification: **"D2A" Materials causing other toxic effects.**

SECTION X - OTHER INFORMATION

Symbol: 	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, (LSRO-FASEB), Hazardous Products Act, Environment Canada, Enviroguide, OSHA, MSHA, ACGIH, IARC, NIOSH, CFR, NTP.

Prepared by:	Telephone number	Date
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