

# Material Safety Data Sheet

Product Name:

## HIGH CALCIUM LIMESTONE

Canutec 24 hours emergency 613-996-6666

6/12/2008

### 1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

#### 1.1. Identification of the substance:

Chemical name: Calcium carbonate  
Product name & synonyms: Agricultural Stone-Small, Agricultural Stone-Large, Sinter Stone, #8's Limestone, #1 Grit Pulverized Limestone, #3 Grit Pulverized Limestone, Grades B, F, G Pulverized Limestone, ROM Stone, ROMF, Calcite, Ground Limestone, grades GPS-20, GPS-325

Formula:  $\text{CaCO}_3$   
CAS #: 471-34-1  
Molecular Weight: 100.09  
Material Uses: Manufacture of lime and lime related products, and aggregate

#### 1.2. Company:

Main Office:  
11 Stanwix Street, 11<sup>th</sup> Floor Telephone: 412-995-5500  
Pittsburgh, PA 15222 Fax: 412-995-5594

Canadian Office:  
P.O. Box 190 Telephone: 519-423-6283  
Ingersoll, Ontario N5C 3K5 Fax: 519-423-6545

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>% by Weight</u>	<u>CAS #</u>	<u>Exposure Limits</u>
Calcium carbonate	> 90	471-34-1	OSHA PEL: 15 mg/m <sup>3</sup> (total); 5 mg/m <sup>3</sup> (respirable) ACGIH TLV: 10 mg/m <sup>3</sup> O. Reg. 833 TWAEV: 10 mg/m <sup>3</sup>
Magnesium carbonate	< 5	546-93-0	OSHA PEL: 15 mg/m <sup>3</sup> (total); 5 mg/m <sup>3</sup> (respirable) ACGIH TLV: 10 mg/m <sup>3</sup> O. Reg. 833 TWAEV: 10 mg/m <sup>3</sup>
Silica - crystalline quartz	0.1 – 1	14808-60-7	OSHA PEL: 30 mg/m <sup>3</sup> / (% silica + 2) (total) 10 mg/m <sup>3</sup> / (% silica + 2) (respirable) ACGIH TLV: 0.025 mg/m <sup>3</sup> (respirable) O. Reg. 845 TWAEV: 0.1 mg/m <sup>3</sup>

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## 3. HAZARDS IDENTIFICATION AND CLASSIFICATION

<b>Overview:</b>	High calcium limestone is an odorless white or grayish-white granular powder. Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract. Contact may irritate eyes, skin, gastrointestinal tract, and respiratory system.
<b>Eyes:</b>	May cause irritation of the eyes.
<b>Skin:</b>	May cause dryness and irritation of the skin.
<b>Ingestion:</b>	May cause discomfort or constipation if swallowed. If large quantities are swallowed, it may cause nausea, hypercalcaemia or hemorrhage.
<b>Inhalation:</b>	May cause irritation of the respiratory system resulting in coughing and/or sneezing. Higher exposures may cause a build up of fluid in the lungs with severe shortness of breath. This product is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline quartz silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.
<b>Irritant:</b>	Eyes, mucous membranes, skin, respiratory tract.
<b>Flammability:</b>	This product is not flammable or combustible
<b>Explosive:</b>	This product is not explosive
<b>Reactivity:</b>	May react violently with strong acids producing heat and possible steam explosion in confined space.

## 4. HEALTH EFFECTS AND TREATMENTS

### Health Effects:

Inhalation:	<u>Acute:</u> irritation, cough, sneezing. <u>Chronic:</u> persistent coughing and breathing problems. Long-term exposure to silica can cause a chronic lung disorder, silicosis.
Eyes:	<u>Acute:</u> May cause irritation <u>Chronic:</u> no known effects.
Skin:	<u>Acute:</u> May cause dryness and irritation. <u>Chronic:</u> no known effects.
Ingestion:	<u>Acute:</u> Gastro-intestinal irritation. Large quantities may cause discomfort and constipation <u>Chronic:</u> no known effects.

### Treatments:

Inhalation:	Move victim to fresh air. Seek medical attention if necessary. If breathing has stopped, give artificial respiration.
Eyes:	Immediately flush eyes with large amounts of water for at least 15 minutes. Pull back the eyelid to make sure all the limestone dust has been washed out. If irritation persists, seek medical attention. Do not rub eyes.
Skin:	Flush exposed area with large amounts of water.
Ingestion:	Give large quantities of water or fruit juice. Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing.

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## 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	Non-flammable
<b>Autoignition temperature:</b>	Non-flammable
<b>Inflammability limits:</b>	None
<b>Explosion risk:</b>	None by itself, but heat produced by reaction with strong acids can generate steam and pressure
<b>Hazardous combustion products:</b>	Decomposes to produce calcium oxide (CaO), which can react with water to produce steam and pressure
<b>Extinguishing media:</b>	Use dry chemical fire extinguisher. Do not use water or halogenated compounds, except that large amounts of water may be used to deluge small quantities of burnt limestone. Use appropriate extinguishing media for surrounding fire conditions.
<b>Fire fighting instructions:</b>	Keep personnel away from and upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (self-contained breathing apparatus).

## 6. ACCIDENT PREVENTION MEASURES

<b>Individual and collective precautions:</b>	Avoid creating conditions which release dust – use mechanical ventilation to control dust levels below PEL.
<b>Avoid inhalation of dust:</b>	Wear NIOSH N-95 particulate respirator if airborne concentration exceeds PEL.
<b>Cleaning methods for spills:</b>	Use personal protective equipment (see Section 8). Dry methods may be used (vacuuming, sweeping) to collect spilled materials but avoid generating excessive dust. For large spills, evacuate area downwind of clean-up operations to minimize dust exposure. For small spills, store spilled materials in dry, sealed plastic or metal containers. Dust residue on surfaces may be washed with water or vinegar.
<b>Precautions for the protection of the environment:</b>	May not be released into surface waters without controls. Prevent release to sewers or waterways.
<b>Waste Disposal:</b>	Dispose according to federal, provincial/state and local environmental regulations.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	In open air or in ventilated places, avoid skin and eye contact, avoid creating airborne dust. Keep in tightly closed containers and protect containers from physical damage. An eye wash station should be readily available where this product is handled.
<b>Storage:</b>	Store in dry places sheltered from humidity. Keep away from acids and incompatible substances Keep out of reach of children

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### Exposure Limits:

Calcium Carbonate: OSHA PEL: 15 mg/m<sup>3</sup> (total); 5 mg/m<sup>3</sup> (respirable)  
ACGIH TLV: 1 mg/m<sup>3</sup>  
Ont. Reg. 833 TWAEV: 10 mg/m<sup>3</sup>

Magnesium Carbonate OSHA PEL: 15 mg/m<sup>3</sup>(total); 5 mg/m<sup>3</sup> (respirable)  
ACGIH TLV: 10 mg/m<sup>3</sup>  
Ont. Reg. 833 TWAEV: 10 mg/m<sup>3</sup>

Silica: OSHA PEL: 30 mg/m<sup>3</sup> / (% SiO<sub>2</sub> + 2) (total)  
10 mg/m<sup>3</sup> / (% SiO<sub>2</sub> + 2) (respirable)  
ACGIH TLV: 0.025 mg/m<sup>3</sup> (respirable)  
Ont. Reg. 845 TWAEV: 0.1 mg/m<sup>3</sup>

**Engineering Controls:** Use ventilation and dust collection to control exposure to below applicable limits.

**Respiratory Protection:** Wear NIOSH N-95 particulate respirator if airborne concentration exceeds PEL.

**Eye Protection:** Wear eye protection (goggles, safety glasses and/or face shield). Contact lenses should not be worn.

**Hand Protection:** Wear clean dry gloves

**Skin Protection:** Cover body with suitable clothes (i.e. long sleeve shirt and trousers).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Odor & Appearance:** Odorless, white or gray powder or stone

**pH:** 9.4 in saturated water solution at 25°C

**Melting point:** 950 °C

**Boiling point:** 2850 °C

**Vapor pressure:** Non volatile

**Vapor density:** Non volatile

**Density:** 2.6 – 2.8 g/cc

**Solubility:** Slightly soluble in water: 0.013 g/L at 18°C  
Soluble in acids, glycerin and sugar solutions

**Specific Gravity:** 2.7

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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable products, not very soluble.
<b>Decomposition temperature:</b>	950°C, forms calcium oxide (CaO) and carbon dioxide(CO <sub>2</sub> )
<b>Reactivity:</b>	Reacts with acids to form calcium salts while generating heat.  Vicinity of incompatible materials
<b>Conditions to avoid:</b>	Acids; reactive fluoridated, brominated or phosphorous compounds; aluminum (may form hydrogen gas), ammonium salts, mercury, hydrogen, magnesium, reactive powdered metals; organic acid anhydrides; nitro-organic compounds; interhalogenated compounds
<b>Incompatible materials:</b>	
<b>Hazardous decomposition products:</b>	Calcium oxide (CaO)

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicity:</b>	This product is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled in the form of quartz or cristobalite. No reported Carcinogenicity, Reproductive Effects, Teratogenicity or Mutagenicity.
<b>Exposure Limits:</b>	Refer to Section 8.
<b>Irritancy:</b>	Can cause irritation of eyes, skin, respiratory tract and gastrointestinal tract.
<b>Chronic Exposure:</b>	Inhalation of silica can cause a chronic lung disorder, silicosis.

## 12. ECOLOGICAL INFORMATION

Alkaline substance that increases pH to a maximum of 9.4 in a saturated water solution at 25°C  
Calcium carbonate is ecologically neutral  
Uncontrolled spillage in surface waters should be avoided since the increase pH could be detrimental to fish  
Harmful to aquatic life in high concentration  
This material shows no bioaccumulation effect or food chain concentration toxicity.

## 13. DISPOSAL CONSIDERATIONS

Dispose according to federal, provincial/state and local environmental regulations. If this product, as supplied, and unmixed, becomes a waste, it will not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act.

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## 14. TRANSPORTATION INFORMATION

<b>Classification:</b>	TDG	Not Regulated
	HMR	Not Regulated
	US DOT	Not Regulated

## 15. REGULATORY INFORMATION

**WHMIS** D2A, Materials Causing other toxic affects.

**NFPA** Health – 1 Fire – 0 Reactivity – 0

**HMIS** Health – 1 Fire – 0 Reactivity – 0 Personal Protection - E

**Risk Phrases:** Risk of serious damage to the eyes  
Keep out of reach of children

**Safety Phrases:** Keep storage container away from humidity  
Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with water for at least 15 minutes

**CPR (Canada):** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) of Canada and this MSDS contains all information required by the CPR.

Refer to Ontario Regulation 845: Designated Substance – Silica.

**United States EPA** RCRA Hazardous Waste Number: not listed (40 CFR 261.33)  
RCRA Hazardous Waste Classification (40 CFR 261): not classified  
CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311(b)(4); CWA, Sec. 307(a), CAA, Sec. 112  
CERCLA Reportable Quantity (RQ): not listed.  
SARA 311/312 Codes: not listed.  
SARA Toxic Chemical (40 CFR 372.65): not listed.  
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed,  
Threshold Planning Quantity (TPQ): not listed.  
All chemical ingredients are listed on the U.S. TSCA Inventory List.

**OSHA** Air contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A)  
Specifically Regulated Substance (29CFR 1910): not listed.

**MSHA** Not listed.

## 16. MISCELLANEOUS OTHER INFORMATION

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