

# Prairie Mud Service Ltd.

"Serving Western Canada with 24 Hour Drilling Mud Service"

## MSDS (Material Safety Data Sheet)

### SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: PRAIRIE MUD SERVICE  
738 6<sup>th</sup> Street  
Estevan, SK S4A 1A4

DATE: Nov. 27, 2009  
PHONE: 306-634-3411  
Fax: 306-634-6694

PRODUCT NAME: CALCIUM CARBONATE  
(0; 325; SUPERCAL-GLASS ROCK; POULTRY GRIT; 30x60)

PRODUCT USE: Drilling fluid and cement additive  
CHEMICAL FAMILY: Inorganic salt (calcium carbonate) CAS#: 47 1-34-1

### WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: D2A  
WORKPLACE HAZARD: Potential carcinogen; may contain crystalline silica

### TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not regulated under TDG.  
TDG CLASSIFICATION: Not applicable.  
UN NUMBER (PIN): Not applicable.  
PACKING GROUP: Not applicable.

### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	% (w/w)	CAS NUMBER	LD <sub>50</sub> Oral-Rat	LC <sub>50</sub> Inhal-Rat	ACGIH-TLV
Calcium carbonate	60-100	471-34-1	6450 mg/kg	Not available	Not established
Crystalline silica, quartz	0.1-1.0 0.0-0.1*	14808-60-7	Not available	Not available	0.025 mg/m <sup>3</sup> respirable

\* Concentration of crystalline silica in a series of lime products will vary from source to source. It was not detected on some samples (<0.1% w/w). Therefore two ranges are being disclosed.

### SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY:  EYE CONTACT  SKIN  INHALATION  INGESTION  
EYE CONTACT: Dusts can cause mechanical irritation.  
SKIN CONTACT: May cause mild skin irritation. Repeated or prolonged contact may have a drying effect on the skin.  
INGESTION: May cause gastro-intestinal irritation  
INHALATION: Dust may cause respiratory tract irritation. Breathing silica dust may not cause noticeable injury or illness even though permanent lung

CALCIUM CARBONATE

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damage may be occurring. Inhalation may cause irritation of the nose, throat and respiratory passages. Long-term inhalation may cause silicosis, a progressive, disabling and sometimes-fatal lung disease. Chronic inhalation exposure to crystalline silica quartz has been observed to cause lymph node effects, kidney effects and auto-immune disease.

**CARCINOGENICITY:** Calcium carbonate is not listed by IARC, NTP, OHSA or ACGIH. However, these products could contain crystalline silica which when inhaled in the form of quartz from occupational sources is carcinogenic to humans: IARC has concluded that this chemical is carcinogenic to humans (Group 1); ACGIH has designated this chemical as a suspected human carcinogen (A2), and; NTP has listed this chemical as a known human carcinogen.

**TERATOGENICITY:** No information available

### **REPRODUCTIVE**

**TOXICITY:**

No information available.

**MUTAGENICITY:**

Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.

### **SYNERGISTIC**

**PRODUCTS:**

No information available.

## **SECTION IV: FIRST AID MEASURES**

**SKIN CONTACT:**

Wash with soap and water. Remove contaminated clothing and launder before reuse. If irritation persists, or develops, obtain medical attention.

**EYE CONTACT:**

Rinse eyes with gently flowing warm water until particles are removed. If irritation persists, obtain medical attention

**INGESTION:**

No adverse effects expected. If irritation or discomfort occurs, obtain medical advice immediately.

**INHALATION:**

Move to fresh air. Give oxygen or artificial respiration if required. If breathing difficulties or distress continues contact a physician.



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### **SECTION V: PHYSICAL DATA**

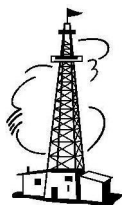
APPEARANCE AND ODOUR:	White to grey powder or granule; odourless
SPECIFIC GRAVITY:	2.65 – 2.75
BOILING POINT (°C):	Not applicable
MELTING POINT (°C):	Not applicable
SOLUBILITY IN WATER:	0.00 1% wt/wt @ 20C pH: 9.4 (sat. sol'n)
PERCENT VOLATILE BY VOLUME:	Not applicable
EVAPORATION RATE:	Not applicable
VAPOUR PRESSURE (mmHg):	Not applicable
VAPOUR DENSITY (air = 1):	Not applicable
BULK DENSITY:	990 – 1900 kg/m <sup>3</sup>

### **SECTION VI: FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT:	Not applicable
FLAMMABLE LIMITS:	Not applicable
EXTINGUISHING MEDIA:	Use media appropriate for packaging and surrounding materials.
SPECIAL FIRE FIGHTING PROCEDURES:	Self contained breathing apparatus required for fire fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Calcium carbonate is generally non-flammable, but ignites on contact with fluorine.

### **SECTION VII: REACTIVITY DATA**

STABILITY:	STABLE [XX]                      UNSTABLE [ ]
INCOMPATIBILITY (CONDITIONS TO AVOID):	Reacts with acids to liberate CO <sub>2</sub> . Ignites on contact with fluorine. May have explosive reaction with magnesium.
CONDITIONS OF REACTIVITY:	Contact with incompatible materials. Decomposes at 870C.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon dioxide and calcium oxide.



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HAZARDOUS POLYMERIZATION: WILL NOT OCCUR [XX] MAY OCCUR [ ]

### **SECTION VIII: PREVENTATIVE MEASURES**

#### **SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION:	Dust mask suggested. Use suitable respiratory protection if TLV's are exceeded.
VENTILATION:	Use local exhaust ventilation, process enclosure or other engineering controls as necessary to maintain dust levels below TLV.
PROTECTIVE GLOVES:	Rubber gloves.
EYE PROTECTION:	Suggest goggles.
OTHER PROTECTIVE EQUIPMENT (Specify):	Suggest a long sleeved shirt, trousers, and safety shoes. Ensure eyewash station and emergency shower are available.

### **PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Avoid inhalation. Wear protective equipment to prevent skin and eye contact. Avoid creating dust. Store in a cool, dry area away from incompatibles. Empty packages contain residual hazardous material and should be handled as if full.

### **STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED**

Use appropriate safety equipment. Avoid creating excessive dust during cleanup. Material can be swept up or vacuumed. Collect uncontaminated material for repackaging. Collect contaminated material in appropriate container for disposal.

### **WASTE DISPOSAL METHOD**

Dispose in accordance with federal, provincial and local regulations. This material is inert and can be landfilled in most locations; check with local operator. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal.

### **SECTION IX: PREPARATION**

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH,  
BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.