



SILVERTHORNE REFRACTORIES INC.

SAFETY DATA SHEET

SECTION 1 – Chemical Product and Company Identification

Product Identifier: Dolomag R

Product Use: Basic Ladles

Manufactures Name: Silverthorne Refractories Inc.
205 Forest St. E.,
Dunnville, Ontario
N1A 3G5

Supplier: Same as Manufacturer

SDS Prepared July 2, 2015

SDS Prepared by: Bob Silverthorne

Phone Number: 905-774-1269

SECTION 2 – Hazards Identification

x Skin Skin Absorption x Eye Contact x Inhalation x Ingestion

.

WHMIS Symbols



Potential Health Effects:

ROUTES OF ENTRY

Inhalation Acute	Yes
Skin Contact	Yes
Inhalation Chronic	Yes
Skin Absorption	Yes



SILVERTHORNE REFRACTORIES INC.

INGESTION: If conscious, give plenty of water, do not induce vomiting, and consult a physician

CARCINOGENCITY

NTP: NAP

IARC: NAP

WHIMIS: NAP

REPRODUCTIVE EFFECTS/TERATOGENICITY/MUTAGENICITY: None Known

EFFECTS OF ACUTE AND CHRONIC EXPOSURE: Dust may irritate eyes, nose, throat, and skin

CHRONIC: Skin and respiratory tract sensitization possible. Prolonged inhalation of dust from product may result in silicosis

SECTION 3 - Composition/Information on Ingredients

Hazardous Ingredients	%	CAS No.	Exposure Limit
MAGNESIUM OXIDE	50-52%	1309-48-8	10MG/M3
SILICON DIOXIDE	3-5	7631-86-9	2MG/M3
CALCIUM OXIDE	45-47	1305-78-8	2MG/M3
IRON OXIDE	1-2	1309-37-1	2MG/M3

SECTION 4 – First Aid Measures

EYES: Flush with plenty of water, consult physician immediately
SKIN: Wash with soap and water. If irritation continues, consult physician
INHALATION: Remove person to fresh air, consult a physician
INGESTION: Do not induce vomiting, consult a physician immediately

SECTION 5 – Fire Fighting Measures

Flash Point Method	N/A
Auto Ignition Temp.	N/A
Lower Explosion Limit	N/A
Upper Explosion Limit	N/A

MEANS OF EXTINCTION: Foam, Dry chemical



SILVERTHORNE REFRACTORIES INC.

SPECIAL PROCEDURES: If involved in fire, wear self contained breathing apparatus
EXPLOSION DATA: Sensitivity to mechanical impact – N/A
Sensitivity to static charge – N/A
HAZARDOUS COMBUSTION PRODUCTS: N/A

SECTION 6 – Accidental Release Measures

Leak and Spill Procedures: Sweep or vacuum, do not create dust. Wear approved respirator

SECTION 7 – Handling and Storage

Wear gloves, goggles, approved Dust Mask and clothing as required to prevent long exposure to skin.

Store in cool dry area.

SECTION 8 – Exposure Control/Personal Protection

Exposure Limits _ACGIH _ OSHA PEL _ Other (specify)

Specific Engineering Controls (such as ventilation/enclosed process)

Personal Protective Equipment

x Gloves x Respirator x Eye Footwear x Clothing Other

Gloves	Yes
Eyes	Safety Goggles
Respiratory	Approved Dust Mask
Clothing & Equipment	As required to prevent prolong exposure to skin

SECTION 9 – Physical and Chemical Properties



SILVERTHORNE REFRACTORIES INC.

Appearance: Beige to light brown.

Odour: Slight odor.

Odour: Threshold: not applicable

pH: Not available.

Melting Point/Freezing Point: 2570 Celcius/0 Degrees Celsius

Boiling Point & Range: 2850 Celsius

Flash Point: not applicable

Evaporation Rate: not applicable

Flammability: not applicable

Upper/Lower Flammability or Explosive Limits: not applicable

Vapour Pressure/Density: Non Volatile

Relative Density: 2.4 – 3.2

Solubility: Not Soluble

Partition Coefficient: n-octanol/water not applicable

Auto Ignition Temperature: not available

Decomposition Temperature: not available

Viscosity: Not Applicable

SECTION 10 – Stability and Reactivity

Reactivity: Reacts with water to form calcium hydroxide and magnesium hydroxide, releasing heat. Reacts with acids to form calcium salts, releasing heat. Reacts with carbon dioxide in air to form calcium carbonate. See also Incompatibility below.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of



SILVERTHRONE REFRACTORIES INC.

Hazardous Reactions: See “reactivity” above.

Conditions to Avoid: Vicinity of incompatible materials.

Incompatibility: This product should not be mixed or stored with the following Materials, due to the potential for violent reaction and release of heat.

- water (unless controlled process)
- acids
- reactive fluoridated compounds
- reactive brominated compounds
- reactive powdered compounds
- reactive phosphorous compounds
- aluminum powder
- oranic acid anhydrides
- nitro-organic compounds
- interhalogenated compounds

Hazardous Decomposition Products: None

SECTION 11 – Toxicological Information

Likely Routes Of Exposure and Symptoms:

Eyes: Contact can cause severe irritation or burning of eyes, including permanent damage.

Skin: Contact can cause severe irritation or burning of skin, especially in the Presence of moisture.

Ingestion: This product can cause severe irritation or burning of gastrointestinal tract if swallowed.

Inhalation: This product can cause severre irritation of the respiratory system.

Cronic Health Effects: This product contains trace amounts of crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can Cause silicosis, as serious lung disease.

Respiratory or

Skin sensitization: This material is not know to cause sensitization.



SILVERTHORNE REFRACTORIES INC.

Germ cell mutagenicity: No data available.

Carcinogenicity: This product is not listed as carcinogenic by OSHA, IARC, NTP, ACGIH, or the EU Directives. This product may contain trace amounts of crystalline silica quartz which is listed by IARC as “Carcinogen to Humans” (Group 1) and “Known to be a Human Carcinogen” by NTP (National Toxicology Program).

Reproductive Toxicity: Not data available.

Numerical Measures of Toxicity: Crystalline Silica: Oral Rate LD₅₀ > 22,500 mg/kg

SECTION 12 – Ecological Information

Because of the elevated pH of this product, it might be expected to produce some ecotoxicity upon exposure to certain aquatic organisms and aquatic systems in high concentrations. This material shows no bioaccumulation effect or food chain concentration toxicity.

SECTION 13 – Disposal Considerations

Dispose of contents in accordance with federal, state, provincial and local regulations.

SECTION 14 – Transport Information

UN Number: UN1910

UN Proper Shipping Name: Calcium Oxide

Transport Hazard Class(es): When transported by air only; Hazard Class 9-Corrosive

Packing Group: When transported by air only: Packing Group III

Environmental Hazards: This material is alkaline and if released into water or moist soil will cause an increase in pH

Transport In Bulk(according to Annex II of Marpol 73/79 and the IBC Code:
(Special precautions which a user needs to be aware of)



SILVERTHORNE REFRACTORIES INC.

When being transported by air, quicklime is classified in the Department of Transportation (DOT) regulations as a hazardous material. (49 CFR 172.101). For aircraft transport only, Calcium Oxide is classified as Hazard Class 8-Corrosive, UN1910, Packing Group III. For passenger aircraft, the maximum net quantity allowed per container is 25kg. For cargo aircraft, the maximum net quantity allowed per container is 100kg. For quantities greater than 25kg up to and including 100kg the container shall be labelled with CARGO AIRCRAFT ONLY. Because express carriers (ie, Federal Express, Airborne Express, and United Parcel Service) ship by air, quicklime presented to these carriers for shipment must be packaged, marked, and labelled in accordance with IATA requirements, and must be accompanied by the appropriate shipping documentation. Only personnel trained and certified under applicable DOT Hazardous Materials Regulations (contained in Title 49 of the Code of Federal Regulations) may prepare any quicklime product for air transport. Quicklime is not classified as a hazardous material by DOT when transported by means other than by air.

SECTION 15 – Regulatory Information

CERCLA Hazardous Substances: not listed

SARA Toxic Chemical (40 CFR 372.65): not listed

SARA Section 302 Extremely Hazardous Substances (40 CFR 355): not listed

SARA 311/312: not listed

SARA Section 313 Toxic Chemicals reporting requirements: none

Threshold planning quantity (TPQ): Not listed

RCRA Hazardous Waste Classification (40 CFR 261): not classified

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA

California Proposition 65: Airborne crystalline silica particulates of respirable size are known to the State of California to cause cancer.

NFPA Ratings: Health:3 Fire: 0 Reactivity: 0

HMIS Ratings: Health 3 Fire: 0 Personal protection: E

OSHA Specifically regulated substance (29 CFR 1910): not listed

OSHA Air contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): listed



SILVERTHORNE REFRACTORIES INC.

MSHA: not listed

Canada DSL: listed

Canadian WHMIS Classification: D2A, Materials causing other toxic effects. E, Corrosive Material.

Canada SPR: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation of Canada and this SDS contains all the required information.

SECTION 16 – Other Information

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, express or implied, regarding the accuracy, correctness, or suitability of this information for application to the purchasers intended use. The conditions or methods of handling, storage, use and disposal of the product are beyond our control. We, therefore, do not assume the responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.