

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Information: ENVIROPLUG® Medium

Chemical Family: Mineral

Recommended Use: Drilling Fluid Additive

Supplier: Bri-Chem Supply Ltd.
27075 Acheson Road
Acheson, AB T7X 6B1
780-962-9490

Emergency Phone Number: CHEMTREC 1-800-424-9300

Section 2: HAZARD(S) IDENTIFICATION

Hazard Classification: Carcinogenicity (Category 1A)
Specific Target Organ Toxicity (Repeated Exposure) (Category 1)

Signal Word: Danger

Hazard Statements: May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Hazard Symbol:



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: If exposed or concerned: Get medical advice/attention. Get medical attention/advice if you feel unwell.

Storage: Store locked up

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations

Hazards Not Otherwise Classified: May cause eye and respiratory irritation

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substances	CAS-No.	Percent
Crystalline Silica, quartz	14808-60-7	<6%

Section 4: FIRST-AID MEASURES

Inhalation:	If inhaled, remove to a dust free area. Get medical attention if respiratory irritation develops or if breathing becomes difficult. Inhalation may aggravate existing respiratory illness.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Skin:	Wash with soap and water. Seek medical attention if irritation persists.
Ingestion:	Do not induce vomiting. First aid measures not normally required.
Notes to Physician:	Treat symptomatically

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Product is non-combustible. All standard firefighting media may be used.
Unsuitable Extinguishing Media:	None
Special Exposure Hazards:	None known. Product is not combustible.
Special Protective Equipment and Precautions for Firefighters:	None for product. Wear self-contained breathing apparatus (SCBA) and full protective gear. Caution: Slippery when wet
NFPA Ratings:	Health: 1 Flammability: 0 Reactivity: 0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures:	Use appropriate protective equipment. Avoid creating and breathing dust. Prevent Further leakage or spillage if safe to do so.
Environmental Precautionary Measures:	No special environmental precautions required
Procedure for Cleaning/Absorption:	Prevent further leakage or spillage if safe to do so. Avoid generating dust. Collect using appropriate dustless method. Dispose in landfill according to local, state and federal regulations.

Section 7: HANDLING AND STORAGE

- Handling Precautions:** This product contains quartz which may become airborne. Avoid breathing dust. Avoid creating dusty conditions. Promptly clean up spills to avoid breathing airborne dust. Avoid creating dusty conditions. Promptly clean up spills to avoid breathing airborne dust. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH/MSHA European Standard En 149, or equivalent certified for silica bearing dust, respirator when using this product. Material is slippery when wet.
- Storage Information:** Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Do not reuse empty container.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA*
Crystalline Silica, quartz	14808-60-7	0.025 mg/m ³	10 mg/m ³ %SiO ₂ + 2

* More restrictive exposure limits may be enforced by some states, agencies, or other authorities.

- Engineering Controls:** Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.
- Personal Protective Equipment:** If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.
- Respiratory Protection:** Not normally needed. If significant exposures exceeding occupational exposure limit are possible use NIOSH/MSHA respirator approved for silica bearing dust.
- Hand Protection:** Standard work gloves
- Skin Protection:** Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.
- Eye Protection:** Wear safety glasses or goggles to protect against exposure
- Other Precautions:** None known

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Granular Solid
Color:	Light tan to gray as dry powder
Odor:	Odorless
pH:	8 – 10 (5% aqueous suspension)
Specific Gravity @ 20c (Water=1):	2.45 – 2.55
Density @ 20c (lbs/gallon):	Not determined
Bulk Density @ 20c (lbs/ft³):	60 – 66
Boiling Point/Range (F/C):	Not applicable
Freezing Point/Range (F/C):	Not applicable
Vapor Pressure @ 20c (mmHg):	Not applicable
Vapor Density (Air=1):	Not applicable
Percent Volatiles:	Not applicable
Evaporation Rate (Butyl Acetate=1)	Not applicable
Solubility in Water (g/100ml):	Insoluble, forms colloidal suspension
Solubility in Solvents (g/100ml):	Not applicable
VOCs (lbs/gallon):	Not applicable
Viscosity, Dynamic @ 20c (centipoise):	3.5 – 12.5 (6% aqueous suspension)
Viscosity, Kinematic @ 20c (Centistrokes)	Not determined
Partition Coefficient/n- octanol/Water:	Not applicable
Molecular Weight (g/mole):	Not applicable
Flash Point/Range (F/C):	Not applicable
Flash Point Method:	Not applicable
Autoignition Temperature (F/C):	Not applicable
Flammability Limits in Air – Lower (%):	Not applicable
Flammability Limits in Air – Upper (%):	Not applicable

Section 10: STABILITY AND REACTIVITY

Reactivity:	Nonreactive
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Will not occur
Conditions to Avoid:	None
Anticipated Incompatibility (Materials to Avoid):	None known
Hazardous Decomposition Products:	None
Additional Guidelines:	Not applicable

Section 11: TOXICOLOGICAL INFORMATION

Principle Route of Exposure: Eye or skin contact, inhalation.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Inhalation:	Inhaled crystalline silica in the form of quartz from occupational sources is carcinogenic to humans (IARC, Group 1)
Skin Contact:	May cause skin irritation due to drying
Eye Contact:	May cause mechanical eye irritation
Ingestion:	None known
Aggravated Medical Conditions:	Individuals with respiratory disease, including but not limited to asthma and bronchitis, or subject to eye irritation, should not be exposed to respirable quartz-bearing dust.
Chronic Effects/Carcinogenicity:	<p>Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.</p> <p>Cancer Status: The International Agency for Research on Cancer (IARC, 1997) concludes that there is sufficient evidence in humans for carcinogenicity of inhaled crystalline silica from occupational sources (IARC Group 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or on external factors affecting its biological activity. See IARC Monograph 68, Silica, Some silicate and Organic Fibres (June 1997). The National Toxicology Program (NTP) classifies respirable crystalline</p>

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silica as "Known to be a human carcinogen" (NTP 9th Report on Carcinogens, 2000). The American Conference of Government Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

Other Information: See "Adverse Effects of Crystalline Silica Exposure" published by the American Thoracic Society Medical Section of the American Lung Association, American Journal of Respiratory and Critical Care Medicine, Volume 155, pages 761-768 (1997).

Toxicity Tests

Oral Toxicity: Not determined

Dermal Toxicity: Not determined

Inhalation Toxicity: Not determined

Primary Irritation Effect: Not classified

Carcinogenicity: Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997).

Genotoxicity: Not classified

Reproductive/Developmental Toxicity: Not classified

Section 12: ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air): Not determined

Persistence/Degradability: Not determined

Bioaccumulation: Not determined

Ecotoxicological Information

Acute Fish Toxicity: Not determined

Acute Crustaceans Toxicity: Not determined

Acute Algae Toxicity: Not determined

Chemical Fate Information: Not determined

Other Information: Not applicable

Section 13: DISPOSAL CONSIDERATIONS

Disposal Method: If product should become a waster dispose in a licensed landfill according to federal, state and local regulations.

Contaminated Packaging: Follow all applicable national or local regulations

Section 14: TRANSPORT INFORMATION

Land Transportation

DOT: Not regulated as hazardous goods
Canadian TDG: Not regulated as hazardous goods
ADR: Not regulated as hazardous goods

Air Transportation

ICAO/IATA: Not regulated as hazardous goods

Sea Transportation

IMDG: Not regulated as hazardous goods

Other Transportation Information

Labels: None

Section 15: REGULATORY INFORMATION

US Regulations

US TSCA Inventory: All components listed on inventory or are exempt
EPA SARA Title III Extremely Hazardous Substances: Not applicable
EPA SARA (311,312) Hazard Class: Chronic Health Hazard
EPA SARA (313) Chemicals: This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).
EPA CERCLA/Superfund Reportable Spill Quantity: Not applicable
EPA RCRA Hazardous Waste Classification: If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65: This product contains crystalline silica (respirable) which is a substance known to the State of California to cause cancer.

Canadian Regulations

Canadian DSL Inventory: All components listed on inventory or are exempt
WHMIS Hazard Class: This product contains crystalline silica (respirable) and is classified as a Class D, Division 2, Subdivision A substance.

Section 16: OTHER INFORMATION

Disclaimer:

The information contained herein is based on data available to us and is believed to be true and accurate. However, no guarantee or warranty is provided, expressed or implied, by the company or its subsidiaries regarding accuracy of the information, the hazards connected with the use of the material, or the results to be obtained from the use thereof. Since the use of this product is within the exclusive control of the user, we do not assume any responsibility and expressly disclaim any liability for any use of this product. It is the user's responsibility to determine the conditions of safe use, storage, and disposal of the product. Compliance with all applicable federal, provincial, and local regulations remains the responsibility of the user.

Prepared by: Bri-Chem Supply Ltd.

Revision Date: June 7, 2024