



# WYO-BEN, INC.

## SAFETY DATA SHEET

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name** MAX BORE™  
**Chemical Family** Mineral  
**Application** Drilling Fluids  
**Manufacturer/Supplier** Wyo-Ben, Inc.  
1345 Discovery Drive  
Billings, MT 59102 USA  
Telephone: 800.548.7055  
Facsimile: 406.656.0748  
**Emergency Phone Number** CHEMTREC® 1.800.424.9300

### SECTION 2 — HAZARD 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

Substance	CAS Number	Percent
Crystalline Silica, quartz	14808-60-7	≤6%

## SECTION 4 — FIRST AID MEASURES

<b><u>Inhalation</u></b>	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.
<b><u>Eyes</u></b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
<b><u>Skin</u></b>	Wash with soap and water. Seek medical attention if irritation persists.
<b><u>Ingestion</u></b>	Do Not induce vomiting. First aid measures not normally required.
<b><u>Notes to Physician</u></b>	Treat symptomatically

## SECTION 5 — FIRE FIGHTING MEASURES

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

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

<b><u>Personal Precautionary Measures</u></b>	Use appropriate protective equipment. Avoid creating and breathing dust. Prevent further leakage or spillage if safe to do so.
<b><u>Environmental Precautionary Measures</u></b>	No special environmental precautions required.
<b><u>Procedure for Cleaning/Absorption</u></b>	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

<b><u>Handling Precautions</u></b>	This product contains quartz which may become airborne. Avoid breathing 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.
<b><u>Storage Information</u></b>	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**

Substance	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA*
Crystalline Silica, quartz	14808-60-7	0.025 mg/m <sup>3</sup>	$\frac{10 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$

\* Quartz from Bentonite was specifically excluded from the new, lower PEL in the 2016 OSHA Respirable Crystalline Silica rulemaking. More restrictive exposure limits may be enforced by some states, agencies, or other authorities.

<b><u>Engineering Controls</u></b>	Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.
<b><u>Personal Protective Equipment</u></b>	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.
<b><u>Respiratory Protection</u></b>	Not normally needed. If significant exposures exceeding occupational exposure limit are possible use NIOSH/MSHA respirator approved for silica bearing dust.
<b><u>Hand Protection</u></b>	Standard work gloves.
<b><u>Skin Protection</u></b>	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.
<b><u>Eye Protection</u></b>	Wear safety glasses or goggles to protect against exposure.
<b><u>Other Precautions</u></b>	None known.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

<b><u>Physical State</u></b>	Powdered Solid
<b><u>Color</u></b>	Light tan to gray as dry powder
<b><u>Odor</u></b>	Odorless
<b><u>pH</u></b>	8 – 10 (5% aqueous suspension)
<b><u>Specific Gravity @ 20 C (Water=1)</u></b>	2.45 – 2.55
<b><u>Density @ 20 C (lbs/gallon)</u></b>	Not determined
<b><u>Bulk Density @ 20 C (lbs/ft<sup>3</sup>)</u></b>	49 - 55
<b><u>Boiling Point/Range (F/C)</u></b>	Not applicable
<b><u>Freezing Point/Range (F/C)</u></b>	Not applicable
<b><u>Vapor Pressure @ 20 C (mmHg)</u></b>	Not applicable
<b><u>Vapor Density (Air=1)</u></b>	Not applicable
<b><u>Percent Volatiles</u></b>	Not applicable
<b><u>Evaporation Rate (Butyl Acetate=1)</u></b>	Not applicable
<b><u>Solubility in Water (g/100ml)</u></b>	Insoluble, forms colloidal suspension
<b><u>Solubility in Solvents (g/100ml)</u></b>	Not applicable
<b><u>VOCs (lbs/gallon)</u></b>	Not applicable
<b><u>Viscosity, Dynamic @ 20 C (centipoise)</u></b>	20 – 25 (3% aqueous suspension)
<b><u>Viscosity, Kinematic @ 20 C (centistokes)</u></b>	Not determined
<b><u>Partition Coefficient/n-Octanol/Water</u></b>	Not applicable
<b><u>Molecular Weight (g/mole)</u></b>	Not applicable
<b><u>Flash Point/Range (F/C)</u></b>	Not applicable
<b><u>Flash Point Method</u></b>	Not applicable
<b><u>Autoignition Temperature (F/C)</u></b>	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 known

**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** 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.

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 Silicates and Organic Fibres (June 1997). The National Toxicology Program (NTP) classifies respirable crystalline silica as “Known to be a human carcinogen” (NTP 9<sup>th</sup> Report on Carcinogens, 2000). The American Conference of Governmental 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**

<b>Oral Toxicity</b>	Not determined
<b>Dermal Toxicity</b>	Not determined
<b>Inhalation Toxicity</b>	Not determined
<b>Primary Irritation Effect</b>	Not classified
<b>Carcinogenicity</b>	Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997).
<b>Genotoxicity</b>	Not classified
<b>Reproductive/Developmental Toxicity</b>	Not classified

**SECTION 12 — ECOLOGICAL INFORMATION**

<b><u>Mobility (Water/Soil/Air)</u></b>	Not determined
<b><u>Persistence/Degradability</u></b>	Not determined
<b><u>Bio-accumulation</u></b>	Not determined
<b><u>Ecotoxicological Information</u></b>	
<b>Acute Fish Toxicity</b>	Not determined
<b>Acute Crustaceans Toxicity</b>	Not determined
<b>Acute Algae Toxicity</b>	Not determined
<b><u>Chemical Fate Information</u></b>	Not determined
<b><u>Other Information</u></b>	Not applicable

**SECTION 13 — DISPOSAL CONSIDERATIONS**

<b><u>Disposal Method</u></b>	If product should become a waste, dispose in a licensed landfill according to federal, state and local regulations.
<b><u>Contaminated Packaging</u></b>	Follow all applicable national or local regulations.

**SECTION 14 — TRANSPORT INFORMATION****Land Transportation**

<b>DOT</b>	Not regulated as dangerous goods
<b>Canadian TDG</b>	Not regulated as dangerous goods
<b>ADR</b>	Not regulated as dangerous goods

**Air Transportation**

<b>ICAO/IATA</b>	Not regulated as dangerous goods
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**Sea Transportation**

<b>IMDG</b>	Not regulated as dangerous goods
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**Other Transportation Information**

<b>Labels</b>	None
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## SECTION 15 — REGULATORY INFORMATION

### US Regulations

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

### International Regulations

<b>Australian Inventory of Chemical Substances (AICS)</b>	All components on inventory
<b>Canadian Domestic Substances List (DSL)</b>	All components on inventory or exempt.
<b>Canadian Non-Domestic Substances List (NDSL)</b>	Not on list
<b>Canadian WHMIS Hazard Class</b>	This product contains crystalline silica (respirable) and is classified as a Class D, Division 2, Subdivision A substance.
<b>Chinese Inventory of Existing Chemical Substances (IECSC)</b>	All components on inventory or exempt.
<b>European Inventory of Existing Commercial Chemical Substances (EINECS)</b>	All components on inventory or exempt.
<b>European List of Notified Chemical Substances (ELINCS)</b>	Not on list.
<b>Japanese inventory of Existing and New Chemical Substances (ENCS)</b>	Not on list
<b>Korean Existing Chemicals List (ECL)</b>	All components on inventory or exempt.
<b>New Zealand Inventory of Chemicals</b>	All components on inventory or exempt.
<b>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</b>	All components on inventory or exempt.
<b>Taiwan Chemical Substance Inventory (TCSI)</b>	All components on inventory or exempt.

## SECTION 16 — OTHER INFORMATION

**Prepared** 12/11/2023  
**Last Revision** 10/30/2024

### **DISCLAIMER**

All information presented herein is believed to be accurate; however, it is the user’s responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied, is made by WYO-BEN, INC. as to this information, or as to the safety, toxicity or effect of the use of this product.