

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER: **BIG HORN BENTONITE**

OTHER MEANS OF IDENTIFICATION: Big Horn Bentonite 30; Big Horn Bentonite 40; Big Horn Bentonite 200

RECOMMENDED USE: Drilling fluid additive


RESTRICTIONS ON USE: None

SUPPLIER IDENTIFIER: **Di-Corp**
8750-53 Ave
Edmonton, AB T6E 5G2
780-440-4923

24 HR EMERGENCY PHONE NUMBER: 1-780-468-4064

SECTION 2: HAZARD IDENTIFICATION

CLASSIFICATION: Carcinogenicity – Category 1A
STOT – RE – Category 1

LABEL SYMBOL: 

SIGNAL WORD: DANGER

CLASSIFICATION INFORMATION: May cause cancer if inhaled.
Causes damage to lungs through prolonged or repeated inhalation.

PRECAUTIONARY STATEMENTS: 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.
In case of inadequate ventilation wear respiratory protection.
IF exposed or concerned: Get medical advice/attention. Immediately call a doctor.
Dispose of contents and/or container in accordance with local, regional, national, and/or international regulations.

OTHER HAZARDS: Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Quartz; crystalline silica	14808-60-7	1 – 6% (w/w)

SECTION 4: FIRST AID MEASURES

SKIN CONTACT: If irritation occurs, before breaks and when shift ends wash with soap and water. If irritation develops and persists seek medical attention.

EYE CONTACT:	Flush with gently flowing warm water until particles are removed and irritation ceases. If irritation persists seek medical attention.
INGESTION:	No first aid required for ingestion of small quantities. If large amount is ingested obtain medical attention.
INHALATION:	Move to area free from dust. If breathing difficulties continue, obtain medical attention. Inhalation may aggravate existing respiratory illness.
MOST IMPORTANT SYMPTOMS / EFFECTS:	No known acute health effects. Long term of respirable crystalline silica can cause silicosis and may result in cancer.
IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT:	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Use media suitable for packaging and surrounding fire.
UNSUITABLE EXTINGUISHING MEDIA:	None.
SPECIFIC FIRE HAZARDS:	None. Product is noncombustible.
HAZARDOUS COMBUSTION PRODUCTS:	Not applicable.
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS:	Self-contained breathing apparatus required for fire-fighting personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use appropriate safety equipment. Avoid creating dust clouds. Avoid breathing dust; wear an approved respirator. Remove and thoroughly clean contaminated clothing before rewearing.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Vacuum up, if possible, to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material in approved containers for disposal. Do not flush with water; becomes slippery when wet.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid creating dust. Avoid breathing dust; wear an approved respirator. Practice reasonable caution and personal cleanliness. Launder contaminated clothing before reuse. Slippery when wet. Empty packages contain residual hazardous material and should be handled as if full.

CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in cool, dry area.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:	Quartz; crystalline silica ACGIH TWA = 0.025 mg/m ³
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ENGINEERING CONTROLS:

Maintain adequate engineering controls and/or ventilation to keep hazardous ingredient(s) below statutory limits.

RESPIRATORY PROTECTION:	PERSONAL PROTECTIVE MEASURES
PROTECTIVE GLOVES:	Wear NIOSH approved dust masks or respirators for silica bearing dust.
EYE PROTECTION:	Personal preference.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Safety glasses with side shields recommended.
	Ensure eyewash station and emergency shower are available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray powder
ODOUR:	Odourless
ODOUR THRESHOLD:	Not applicable
pH:	8 – 10 (5% aqueous solution)
MELTING POINT / FREEZING POINT:	Not applicable
BOILING POINT / RANGE:	Not applicable
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not applicable
FLAMMABILITY:	Not flammable
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not applicable
VAPOUR DENSITY:	Not applicable
RELATIVE DENSITY:	2.45 – 2.55
SOLUBILITY:	Insoluble in water (forms colloidal suspension)
PARTION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	240 centipoise @ 20°C (dynamic)

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	No known dangerous reactions under normal conditions of use.
CHEMICAL STABILITY:	Stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS:	None known.
CONDITIONS TO AVOID:	Avoid creating dust clouds.
INCOMPATIBLE MATERIALS:	Hydrofluoric acid
HAZARDOUS DECOMPOSITION PRODUCTS:	Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY: Not available.

COMPONENT TOXICITY

COMPONENT	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
Quartz; crystalline silica	Not available	Not available	Not available

SKIN CONTACT:	Possible drying resulting in dermatitis.
EYE CONTACT:	May cause mechanical irritation.
INGESTION:	Low oral toxicity. No effects expected.

INHALATION:	May cause irritation of the upper respiratory tract. This product contains crystalline silica. Breathing silica containing dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Chronic 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:	Bentonite is not listed by ACGIH, IARC, NTP or OSHA. Crystalline silica, when inhaled from occupational sources, is considered as a human carcinogen by IARC (Class 1) and by NTP. ACGIH classifies crystalline silica, quartz, as a suspected human carcinogen (A2).
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	No information available.
MUTAGENICITY:	Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.
CHRONIC TOXICITY:	Prolonged inhalation of respirable crystalline silica may cause lung disease, silicosis, lung cancer and other effects.
TARGET ORGAN EFFECTS:	Respiratory system (lungs).

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	No data available.
PERSISTENCE AND DEGRADABILITY:	Not applicable to inorganic substances.
BIOACCUMULATIVE POTENTIAL:	No data available.
MOBILITY IN SOIL:	No data available.
OTHER ADVERSE EFFECTS:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. May be disposed of as an inert solid in a sanitary landfill in some locations: Check with local operator. Empty packages should be taken for local recycling, recover or waste disposal: Check with local waste operator.

SECTION 14: TRANSPORTATION INFORMATION

TDG:	Not regulated
DOT:	Not regulated
IATA:	Not regulated
IMDG:	Not regulated
UN NUMBER:	Not applicable
PROPER SHIPPING NAME:	Not applicable
CLASS:	Not applicable
PACKING GROUP:	Not applicable
IMDG HAZARDS:	Not applicable
BULK TRANSPORT:	Not applicable
SPECIAL PRECAUTIONS:	Not applicable

SECTION 15: REGULATORY INFORMATION

DSL: All ingredients are on the DSL.
WHMIS CLASS: D2A
TSCA: All components are listed on the inventory or are exempt.

SECTION 16: OTHER INFORMATION

REVISION DATE: April 1, 2025
REPLACES: July 10, 2018

The information contained herein is given in good faith, but no warranty, expressed or implied, is made.