



SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

1. PRODUCT IDENTIFICATION

Trade Name(s): BentoPro Granules
CAS No: 1302-78-9
Chemical Name: Sodium Montmorillonite – Cas No 1318-93-0
Synonyms: Bentonite, Bentonite Clay

Supplier:
EPRO Services, Inc.
PO Box 347
Derby, KS 67037
800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Crystalline Silica CAS No. 14808-60-7 Low concentrations of crystalline silica (SiO_2) in the form of quartz may be present in airborne bentonite dust. See Section VIII for discussion of health hazard.

Note: Although the typical quartz content of western bentonite is in the range of 2 to 6% most of the quartz particles are larger than the $10\ \mu$ respirable threshold size. The actual respirable quartz concentration in airborne bentonite dust will depend upon bentonite source, fineness of product, moisture content of product, local humidity, and wind condition at point of use and other use specific factors.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Crystalline Silica CAS No. 14808-60-7 Low

4. FIRST-AID MEASURES

Skin: Wash with soap and water until clean.
Eyes: Flush with water until irritation ceases.
Inhalation: Move to area free from dust. If symptoms of irritation persist contact physician. Inhalation may aggravate existing respiratory illness.

5. FIRE-FIGHTING MEASURES

Flash Point: N/A
Flammable Limits: LEL: N/A UEL: N/A
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None. Product becomes slippery when wet.
Extinguishing Media: Any media can be used for the packaging.

6. ACCIDENTAL RELEASE MEASURES

Avoid breathing dust; wear respirator approved for silica bearing dust. Vacuum up to avoid generating airborne dust. Avoid using water. Product is slippery when wetted.

7. HANDLING AND STORAGE

Use NIOSH/MSHA respirators approved for silica bearing dust when free silica containing airborne bentonite dust levels exceed PEL/TLV's. Clean up spills promptly to avoid making dust. Storage area floors may become slippery if wetted.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Routes of Exposure and Effects

Skin: possible drying resulting in dermatitis

Eyes: Mechanical irritant

Inhalation: Acute (short term) exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough. Chronic (long term) exposure to airborne bentonite dust containing respirable size ($\leq 10 \mu$) quartz particles, where respirable quartz particle levels are higher than TLV's, may lead to development of silicosis or other respiratory problems. Persistent dry cough and labored breathing upon exertion may be symptomatic.

Ingestion: No adverse effects.

Permissible Exposure Limits (for air contaminants)

		OSHA PEL (8hr TWA)	ACGIH TLV
Bentonite as "particulates not otherwise regulated" (formerly nuisance dust)	Total dust	15mg/m ³	ND
	Respirable dust	5mg/m ³	ND
Crystalline Silica: Quartz (respirable)		<u>10mg/m³</u> % Silica + 2	0.025mg/m ³

Industrial Hygiene Control Measures

Ventilation Requirements: Mechanical, general room ventilation. Use local ventilation to maintain PEL's/TLV's.

Respirator: Use respirators approved by NIOSH/MSHA for silica bearing dust.

Eye Protection: Generally not necessary. Personal preference.

Gloves: Generally not necessary. Personal Preference

Other Protective Clothing or Equipment: None.

Avoid prolonged inhalation of airborne dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F) N/A

Vapor Pressure (mm.Hg) N/A

Vapor Density (Air=1) N/A

pH 8-10 (5% aqueous suspension)

Odor: No odor

Appearance: Blue gray to green as moist; solid, light tan to gray as dry powder

Specific Gravity (H₂O=1) 2.45-2.55

Melting Point: Approx 1450°C

Evaporation Rate (Butyl Acetate = 1): NA

Solubility in Water: insoluble, forms colloidal suspension

Density (at 20°C): 55-68 lbs/cu.ft. as product

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: None

Incompatibility: None

Hazardous Decomposition Products: None

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: Bentonite is not listed by ACGIH, IARC, NTP or OSHA. IARC, 1997, concludes that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources (IARC Class 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 ability. NTP classifies respirable crystalline silica as “known to be a human carcinogen” (NTP 9th Report on Carcinogens – 2000). ACGIH classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

Acute Oral LD ₅₀ : ND	Acute Dermal LD ₅₀ : ND	Aquatic Toxicology LC ₅₀ : ND
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12. ECOLOGICAL INFORMATION (non-mandatory)

13. DISPOSAL CONSIDERATION

Product should be disposed of in accordance with applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

Shipping Name: N/A (Not Regulated)

Hazard Class: N/A

Hazardous Substance: N/A

Caution Labeling: N/A

15. REGULATORY INFORMATION (non-mandatory)

16. OTHER INFORMATION

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.