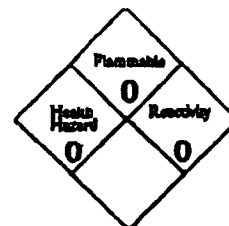




WYO-BEN, INC.

MATERIAL SAFETY DATA SHEET



NFPA FIRE HAZARD
IDENTIFICATION SYSTEM

I. PRODUCT IDENTIFICATION			
Trade Name(s): HYDROGEL®			
Generic Name(s): Wyoming (Western) Bentonite		(CAS No. 1302-78-9)	
Chemical Name(s): Sodium Montmorillonite		(CAS No. 1318-93-0)	
Manufacturer: WYO-BEN, INC. Address: P.O. Box 1979 Billings, Montana 59103		Telephone Numbers: Information: (406) 652-6351 EMERGENCY: (406) 652-6351	
II. HAZARDOUS INGREDIENTS			
Ingredient	CAS No.	%	Hazard
Crystalline Silica (SiO ₂)	7631-86-9		Low concentrations of crystalline silica (SiO ₂) in the form of quartz, cristobalite, and tridymite may be present in airborne bentonite dust. The concentration level of total free silica in airborne bentonite dust is variable depending upon origin of bentonite ore, fineness of product, moisture content of product, local humidity and wind conditions, etc. (See Section VI)
III. PHYSICAL DATA			
Boiling Point (°F): NA		Specific Gravity (H ₂ O=1): 2.45-2.55	
Vapor Pressure (mm. Hg): NA		Melting Point: Approx. 1450°C	
Vapor Density (Air = 1): NA		Evaporation Rate (Butyl Acetate = 1): NA	
Solubility in Water: Insoluble, forms colloidal suspension.		pH: 8-10 (5% aqueous suspension)	
Density (at 20° C): 55 lbs./cu.ft. as product.			
Appearance and Odor: Bluegray to green as moist solid, light tan to gray as dry powder. No odor.			
IV. FIRE AND EXPLOSION DATA			
Flash Point: NA		Flammable Limits: LEL: NA UEL: NA	
Special Fire Fighting Procedures: NA			
Unusual Fire and Explosion Hazards: None. Product will not support combustion.			
Extinguishing Media: None for product. Any media can be used for the packaging.			
V. REACTIVITY			
Stability: Stable			
Hazardous Polymerization: None			
Incompatibility: None			
Hazardous Decomposition Products: None			
NA = Not Applicable		ND = Not Determined	
		Date Prepared: March 9, 1990	

VI. HEALTH HAZARD INFORMATION**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 free silica containing airborne bentonite dust where levels are higher than TLV's may lead to development of silicosis or other respiratory problems. Persistent dry cough and labored breathing upon exertion are symptomatic.

Ingestion: No adverse effects.**Permissible Exposure Limits:**
(for air contaminants)**OSHA PEL**
(8hr. TWA)**ACGIH TLV**

Bentonite as nuisance dust

Total dust

15mg/m³

ND

Respirable dust

5mg/m³

ND

Crystalline Quartz (respirable)

0.1mg/m³0.1mg/m³

Where cristobalite or tridymite are present use 1/2 of the PEL or TLV value for crystalline quartz.

Carcinogenicity: Bentonite is not listed by NTP, IARC or OSHA. IARC, 1987, concludes that there is limited evidence suggesting the carcinogenicity in humans of inhaled crystalline silica (IARC Class 2A).**Acute Oral LD₅₀:** ND**Acute Dermal LD₅₀:** ND**Aquatic Toxicology LC₅₀:** ND**Emergency and First Aid Procedures:****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.**VII. HANDLING AND USE PRECAUTIONS****Steps to be Taken if Material is Released or Spilled:** Avoid breathing dust; wear respirator approved for silica bearing dust. Vacuum up to avoid generating airborne dust. Avoid using water. Product slippery when wetted.**Waste Disposal Methods:** Product should be disposed of in accordance with applicable local, state and federal regulations.**Handling and Storage Precautions:** 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.**VIII. 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**IX. SPECIAL PRECAUTIONS**

Avoid prolonged inhalation of airborne dust.

DEPARTMENT OF TRANSPORTATION INFORMATION**Shipping Name:** Common Ground Clay (NOIBN)**Hazard Class:** Not Hazardous**Hazardous Substance:** None**Cautionary Labeling:** None required

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.