

MATERIAL SAFETY DATA SHEET

BENTONITE

SECTION 1 - PRODUCT IDENTIFICATION

Trade Name: IBEX BENTONITE
Synonym: Montmorillonite
Chemical Family: Alumino Silicate
Formula: $A1_2 O_3 SiO_2 H_2O$
CAS Number: 1302-76-7
HMIS: HO* FO RO

SECTION 2 - HAZARDOUS INGREDIENTS

Bentonite contains free silica. The current OSHA standard, 8 hour TWA (Respirable Dust) is determined by the formula:

$$10 \text{ mg/M}^3 / \%SiO_2 + 2 \text{ or } 50 \text{ mppcf} / \%SiO_2 + 5$$

ACGIH is proposing a TLV of 0.1 mg/M³ (Respirable Dust) or 0.3 mg/M³ (Total Dust). NIOSH has recommended a Permissible Exposure Level of 0.05 mg/M³.

SECTION 3 - PHYSICAL DATA

Boiling Point (°F): Not Applicable
Vapor Pressure (mm Hg): Not Applicable
Vapor Density: Not Applicable
Solubility in Water: Insoluble
Specific Gravity (H₂O+1): 2.58
Percent Volatile by Weight: 0
Evaporation Rate: 0
Appearance and Odor: White Powder, No Odor

SECTION 4 - FIRE AND EXPLOSIVE HAZARD DATA

Flash Point (Method Used): Non-flammable
Flammable Limits: LEL - Non-flammable
UEL - Non-flammable
Extinguishing Media: Water
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

SECTION 5 - HEALTH HAZARD DATA

Threshold Limit Values: Silica- 10 mg/M³ / %SiO₂ + 21 or
50 mppcf / %SiO₂ + 5 (OSHA)
0.1 mg/ M³, Respirable Dust (ACGIH)
0.3 mg/M³, Total Dust (ACGIH)
0.05 mg/M³ Recommended PEL (NIOSH)

Effects of Overexposure: Short term overexposure to silica can produce cough, wheezing and dyspnea. Long term overexposure to silica causes silicosis, a form of pulmonary fibrosis. Continued exposure to silica can lead to cardiopulmonary impairment.

Emergency and First Aid Procedures: Wash dust from skin with soap and water. Flush out eyes with generous amounts of water for at least 15 minutes. See a Physician if irritation persists.

SECTION 6 - REACTIVITY DATA

Product is stable.

Incompatibility: None

Hazardous Decomposition Products: None

Hazardous Polymerization will not occur.

SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: Notify Safety Personnel of major spills. Provide ventilation. Clean-up personnel need protection against eye contact and inhalation of dust. Pick up spills taking care to avoid raising dust clouds (vacuum or wet sweeping is recommended). Place in closed container for disposal.

Waste Disposal Method: Dispose in approved landfill. Disposal must be made in accordance with Federal, State and Local regulations.

SECTION 8 - SPECIAL PROTECTION INFORMATION

Eye Protection: (Use Most Appropriate): Safety Glasses, Goggles, Face Shield.

Skin Protection: Leather or Rubber Gloves

Respiratory Protection: Use of dust respirator is recommended when exposure limits may be exceeded.

Ventilation: Local exhaust ventilation to collector or containment recommended to control dust to below exposure limits.

SECTION 9 - SPECIAL PRECAUTIONS

Engineering controls should be used to maintain free silica dust exposures below the TLV. When the limits cannot be met, then the employee must utilize a respiratory protection program.

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