SOUTHERN CLAY PRODUCTS / A SUBSIDIARY OF ROCKWOOD SPECIALTIES, INC.

MATERIAL SAFETY DATA SHEET

(Complies with OSHA CFR 1910.1200, ANSI Z 400.1-1993, Canada's WHMIS, EEC Directives and Mexico Requirements)

Bentolite® L-10

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product identification: Bentonite

Trade Name(s): Bentolite® L-10

Product use: Rheological additive, Water barrier, Binder

Manufacturer/Supplier 24 HR. EMERGENCY TELEPHONE NUMBERS

Southern Clay Products, Inc.
1212 Church Street
Gonzales, TX 78629

Customer Service (830) 672-2891
Emergency Telephone (8 a.m. - 5 p.m. CST): (830) 672-2891
CHEMTREC (US): (800) 424-9300
CHEMTREC (International): (703) 527-3887

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS No.
Bentonite	1302-78-9

Hazardous Ingredients:

Crystalline Silica (quartz, 14808-60-7) is present at <2.0% as a naturally occurring component not removed from the clay ore in processing. See Section 11 for further information.

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3. HAZARDS IDENTIFICATION

HMIS Rating: Health=1* (possible hazard from chronic exposure to dust, see Section 11), Flammability = 0, Reactivity = 0, Personal Protective Equipment = E

EMERGENCY OVERVIEW: Under normal usage or contained spills this material does not pose a significant emergency risk. This material is very slippery when wetted with water. Appropriate precautions should be taken to avoid slips and falls.

POTENTIAL HEALTH EFFECTS:

Eyes: May cause slight eye irritation. Direct contact should be avoided to prevent physical damage.

Skin: None known.

Inhalation: Short term exposure to high dust levels could cause minor irritation. Long term exposure to high concentrations of dust should be avoided due to the presence of quartz which can cause severe and permanent lung damage when inhaled. Control dust levels with engineering controls (local exhaust ventilation). Prevent dust inhalation with use of a NIOSH approved dust respirator for silica dust if engineering controls are inadequate.
Carcinogenicity: IARC has classified crystalline silica as a human carcinogen.
Target Organs: Lungs

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4. FIRST AID MEASURES

Skin: Wash off with soap and water.
Eye: Flush with tepid water for 15 minutes. If irritation or pain persists, seek medical attention.
Inhalation: Remove person to fresh air. Seek medical attention if shortness of breath or irritation persists.
Ingestion: Could result in intestinal blockage. If large amounts are swallowed seek medical attention.
Notes to Physician: Mixture is orally non-toxic. See Section 11 for additional toxicological data.

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5. FIRE FIGHTING MEASURES

Flashpoint:	Not applicable
Upper Explosive Limit:	Not applicable
Lower Explosive Limit:	Not applicable
Autoignition Temperature:	Not applicable
Thin-film Ignition Temperature:	Not applicable
Known or anticipated hazardous products of combustion:	None
Basic fire fighting guidance:	Not applicable
Extinguishing media:	Not applicable

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6. ACCIDENTAL RELEASE MEASURES

Wet down large spills with water mist to avoid generating excessive dust levels. Caution: This material is very slippery when wet. Appropriate precautions should be taken avoid slips and falls.

Clean-up procedures and equipment: Use of a dustless vacuum system or shoveling. Flushing with water is also an acceptable method. Avoid dry sweeping or other methods that may generate high dust concentrations. Wear NIOSH approved dust respirator.

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7. HANDLING AND STORAGE

Handling: Adequate ventilation is necessary in handling areas to prevent excessive airborne dust.

Storage: Store in closed containers in a dry area.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Provide general or local ventilation adequate to maintain airborne levels below occupational exposure limits.

Personal Protection Equipment:

Eye/face: Use safety glasses or goggles.

Skin: None

Respiratory: Use a NIOSH approved respirator appropriate for exposure to silica dust and the other relevant conditions of use if dust levels are above exposure limits. Half-masks are usually sufficient for normal use.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: tan powder

Odor: mild

Physical State: solid

pH: 7.0 – 8.5 (10% solids in deionized water)

Vapor Pressure: not applicable

Vapor Density: not applicable
Boiling Point: not applicable
Melting Point: not applicable
Solubility in Water: negligible
Specific Gravity: 2.6

10. STABILITY AND REACTIVITY

Incompatibilities: None
Conditions to avoid: Not applicable
Stability: This material is stable under normal storage and handling conditions.
Hazardous Polymerization: Not applicable

11. TOXICOLOGICAL INFORMATION

The International Agency of Research on Cancer has determined that over-exposure to Crystalline Silica can cause lung cancer and silicosis, a progressive lung disease in humans. Health affects from exposure to Crystalline Silica occur only when it is inhaled.

Inhalation Effects: Crystalline Silica has been shown to cause silicosis and lung cancer. Crystalline Silica only causes these conditions when inhaled.
Skin Contact: Prolonged skin contact may lead to drying or cracking of the skin due to H2O absorption properties of the clay.
Eye Contact: As with any dust, will be irritating to the eyes due to physical scratching.
Medical Conditions Aggravated: Respiratory disorders
Occupational Exposure Limits: Studies have shown that the quartz (crystalline silica) is evenly distributed throughout all particle sizes of this product. Keep dust levels below permissible limits

ACGIH 8-hour TWA (Respirable Dust)	ACGIH STEL	OSHA PEL (Respirable Dust) (8-hour TWA)	OSHA PEL (Total Dust) (8-hour TWA)
0.025 mg/m3 (as quartz)	None	10 mg/m3 % SiO2 + 2	30 mg/m3 % SiO2 + 2

The NIOSH recommended exposure limit is 0.05 mg/m3 (8-hour TWA)

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: None known.

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner in accordance with local and federal regulations.

This information applies to materials as manufactured; contamination or processing may change waste characteristics and requirements.

14. TRANSPORT INFORMATION

This material is not regulated by the Department of Transportation

15. REGULATORY INFORMATION

SARA 313: None known

US TSCA Inventory: On the inventory CAS No. 1302-78-9

European Inventory: Listed on the EINECS Inventory

Canadian DSL: Exempt

Australian AICS: Listed on the AICS

Japanese ENCS: Listed on the ENCS

California Proposition 65: Crystalline Silica in airborne particles of respirable size is known to the state of California to cause cancer.

Europe

Quartz: Occupational Exposure Limits

Belgium = 0.1 mg/m3 (TWA) Finland = 0.2 mg/m3 (TWA)

Denmark = 0.1 mg/m3 (TWA) Germany= 0.15 mg/m3 (TWA)

Sweden = 0.1 mg/m3 (TWA)

U.K.= 0.1 mg/m3 (respirable) Switzerland= 0.15 mg/m3 (TWA)
U.K.= 0.3 mg/m3 (total dust)
Russia = 14.0 mg/m3 (STEL)
Thailand = 10.0 mg/m3 (respirable); 30.0 mg/m3 (total dust)

Note: Different countries apply quartz occupational exposure limits in different manners, depending on how they define "respirable" fraction, and mass percentage of a total mixture; consult local authorities for application.

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16. OTHER INFORMATION

Prepared by: Quality Engineering Department, Southern Clay Products

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MANUFACTURER DISCLAIMER: The information presented herein is believed to be accurate but is not warranted. Recipients are advised to confirm in advance that the information is current, applicable and suitable to their circumstances.