



Claytone® II

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product identification: Alkyl Quaternary Ammonium Bentonite OR Alkyl Quaternary Ammonium Montmorillonite

Trade Name(s): Claytone® II

Product use: Rheological additive

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

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS No.
Alkyl Quaternary Ammonium Bentonite	68953-58-2
OR	
Alkyl Quaternary Ammonium Montmorillonite	68911-87-5

Hazardous Ingredients:

Crystalline silica (quartz, 14808-60-7) is present at <7.0% as a naturally occurring component not removed from the clay ore in processing. See Section 11 for further information.

3. HAZARDS IDENTIFICATION

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

EMERGENCY OVERVIEW: Under normal usage or contained spills this material should not pose a significant emergency risk. If high dust levels are generated (dust clouds obscuring vision), this material has a potential to be a flammable and explosive hazard (See Section 5). Large spills should be contained with water mist and cleaned up using a method that will not generate excessive dust levels. This material is also very slippery when wetted with water, oils or solvents. 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: There is limited evidence of skin irritation of this product, however this material is a potential allergin due to its content of quaternary amine. Quaternary amine content of this product may cause dermatitis or itching in some individuals. Chronic dermal exposure effects for quaternary amine are not known.

Inhalation: Short term exposure to high dust levels could cause minor irritation. Long term dust exposure should be avoided due to the presence of quartz which can cause 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

4. FIRST AID MEASURES

Skin: Wash off with soap and water.

Eye: Flush with tepid water for 15 minutes. If irritation or pain persist, 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.

5. FIRE FIGHTING MEASURES

Excessive airborne dust may be a fire and explosion hazard.

Flashpoint: Not determined

Upper Explosive Limit: Not determined

Lower Explosive Limit: 0.05 oz/ft³ (50g/m³) airborne dust concentrations may ignite at 470°C.

Autoignition Temperature: Not determined

Thin-film Ignition Temperature: 190°C.

Known or anticipated hazardous products of combustion:

Nitrogen oxides, carbon monoxide, hydrogen chloride

Basic fire fighting guidance: Normal precautions for organic dusts should be provided. Avoid high dust concentrations and ensure all equipment is properly grounded to prevent static discharges.

Extinguishing media: Water mist/fog, dry chemical, foam, carbon dioxide. AVOID water jets.

6. ACCIDENTAL RELEASE MEASURES

Wet down large spills with water mist to avoid generating excessive dust levels. Remove ignition and static electricity sources if large amounts of airborne dust are present. 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.

7. HANDLING AND STORAGE

Handling: Adequate ventilation is necessary in handling areas to prevent excessive airborne dust. Explosion-proof equipment is recommended. Take precautions to ensure that all equipment is properly grounded in order to avoid static discharge.

Do not allow dust to collect on surfaces, in order to prevent explosion hazards.

Keep away from ignition sources, open flames and excessive heat.

Store separately from strong oxidizers and acids.

Storage: Store in closed containers in a dry area away from flames.

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: Use chemical resistant gloves.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: tan powder

Odor: mild

Physical State: solid

pH: not applicable

Vapor Pressure: not applicable

Vapor Density: not applicable

Boiling Point: not applicable

Melting Point: not applicable

Solubility in Water: negligible

Specific Gravity: 1.5 - 1.7

10. STABILITY AND REACTIVITY

Incompatibilities: Avoid contact with strong oxidizers or acids.

Conditions to avoid: Heat and open flame.

Stability: This material is stable under normal storage and handling conditions.

Hazardous Polymerization: not applicable

Decomposition: Organic decomposition onset temp. is approx. 200°C

11. TOXICOLOGICAL INFORMATION

The International Agency of Research on Cancer has determined that over exposure to crystalline silica can cause lung cancer 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, a lung disease. Crystalline silica only causes these conditions when inhaled.

Skin Contact: Prolonged skin contact may lead to drying or cracking of the skin due to water absorption properties of the clay.

Eye Contact: As with any dust, may be irritating to the eyes due to physical abrasion.

Medical Conditions Aggravated: Respiratory disorders. May pose as an allergin for persons who are strongly allergic to quaternary amines.

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/m ³ (as quartz)	None	10 mg/m ³ % SiO ₂ + 2	30 mg/m ³ % SiO ₂ + 2

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

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: None known.

13. DISPOSAL CONSIDERATIONS

Although not classified as a hazardous waste, this material is unsuitable for incineration, chemical or biological degradation.

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. 68953-58-2
European Inventory:	On the EINECS Inventory 2732194
Canadian DSL:	On the DSL CAS No. 68953-58-2
Australian AICS:	On the AICS
Japanese ENCS:	On the ENCS 9 1971

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/m ³ (TWA)	Finland = 0.2 mg/m ³ (TWA)
Denmark = 0.1 mg/m ³ (TWA)	Germany= 0.15 mg/m ³ (TWA)
Sweden = 0.1 mg/m ³ (TWA)	
U.K.= 0.1 mg/m ³ (respirable)	Switzerland= 0.15 mg/m ³ (TWA)
U.K.= 0.3 mg/m ³ (total dust)	
Russia = 14.0 mg/m ³ (STEL)	
Thailand = 10.0 mg/m ³ (respirable); 30.0 mg/m ³ (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.

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.