

Material Safety Data Sheet

Montmorillonite clay - Bentonite clay

Section 1 - Chemical Product and Company Identification

MSDS Name: ION-MIN® Calcium Montmorillonite Clay

Catalog Numbers: UPC: 5484661001

Synonyms: Montmorillonite, Smectite, Bentonite

Company Identification:

California Earth Minerals, Inc.

PO Box 3113

Culver city, CA 90231

For information in North America, call: 888-303-1110

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1318-93-0	Montmorillonite	100.0	215-288-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: beige/gray inert mineral powder

Caution! Very fine powder: May cause eye irritation. Inhalation may cause respiratory irritation. Substance in hydration is used as desiccant, antibacterial and detoxification agent. Substance is natural. Substance is normally considered an antitoxin when used internally in a manner similar to activated carbon. Substance is a silicate, normally considered inert. Ingestion of over 1% of body weight may produce nausea, vomiting or gastrointestinal irritation.

Target Organs: None.

Potential Health Effects

Eye: Dust may cause mechanical irritation.

Skin: Not a skin irritant.

Ingestion: No known toxicity when ingesting small amounts under 1% of total body weight. While it normally functions as an adsorptive and detoxifier, substance can be antagonistic to prescription medications by adsorbing and absorbing cationic materials. It is possible that the substance may cause gastrointestinal irritation with nausea, vomiting and diarrhea in unusual circumstances. The toxicological properties of this substance have been investigated and it is normally considered safe when ingested in small amounts.

Inhalation: Dust is irritating to the respiratory tract. The toxicological properties of inhaling this substance have not been fully investigated.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: If skin reacts, get medical aid. Wash skin with plenty of water for at least 15 minutes. Remove affected clothing.

Ingestion: If you believe a sick person has ingested this substance, verify that the victim is conscious and alert; give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid whenever a person has ingested a substance not in final form for consumer internal use.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen or move person into fresh air. If not breathing give artificial respiration. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is noncombustible.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not available. Avoid dust formation.

Autoignition Temperature: Not available.

Explosion Limits, Lower:N/A

Upper: N/A

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing normal precautions. Provide ventilation. Never re-use spilled material. Substance is a strong adsorptive agent, sometimes used to clean toxic spills. Substance is normally antibacterial. Substance will not harm sewage or drains, but should not be dumped or released into sewer lines.

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Section 7 - Handling and Storage

Handling: Splash goggles. Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid inhalation. Not for ingestion unless otherwise indicated. Respiratory protection is not required unless air velocity forms dust clouds.

Storage: Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area. Use normal fire protection.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Mortmorillonite	none listed	none listed	none listed

OSHA Vacated PELs: Mortmorillonite: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: For prolonged or repeated contact use protective gloves.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Formula: $Al_2[(OH)_2Si_4O_{10}] \cdot nH_2O$

Density: 1.7-2.7 g/cm³

Hardness: 1-2

CAS-No. 1318-93-0

Physical State: Powder

Appearance: beige-tan

Odor: odorless

pH: neutral to slightly alkali, averages 8.3

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: Not applicable.

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, strong oxidants.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# unlisted. Same CAS as 1318-93-0

LD50/LC50:

Not available.

Carcinogenicity:

CAS# unlisted: same as: 1318-93-0

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Animal toxicity:

LD50: Not available.

LC50: Not available.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies: considered antibacterial

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information found.

Physical: No information found.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

DOT (US)

Not dangerous goods. Not a DOT controlled material (United States).

IMDG

Not dangerous goods

IATA

Not dangerous goods

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# unlisted. Same CAS as 1318-93-0 is not listed on the TSCA inventory. It is for research and development use only. TSCA 8(b) inventory: Bentonite

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 1318-93-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

HMS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Specific hazard:

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 37 Wear suitable gloves with prolonged exposure.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash with plenty of water

WGK (Water Danger/Protection)

CAS# unlisted. Same as 1318-93-0: No information available.

Canada - DSL/NDSL

CAS# 1318-93-0 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 8/28/08

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall California Earth Minerals, Inc. or its distribution partners be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if California Earth Mineral, Inc.s or its distribution partners has been advised of the possibility of such damages.