



Material Safety Data Sheet – Clay Mineral Desiccants

Section I – Product Identification

Trade Names:	Esorb MT, MD (active clay)
Chemical Family:	Clay Mineral
Chemical Names & Synonyms:	Montmorillonite Clay Mineral Smectite Clay Mineral Bentonite Calcium Aluminosilicate
Formula:	$(Ca)_x(Al_{2-x}Mg_x)Si_4O_{10}(OH)_2 \cdot nH_2O$

NFPA/HMIS:

Health	0
Fire	0
Reactivity	0
Specific Hazard	See Section X

Section II – Hazardous Ingredients

Hazardous Components in the solid mixture

COMPONENT	CAS No.	% by Weight	OSHA/PEL	ACGIH/TLV
Montmorillonite Clay Mineral	1302-78-9	≅ 99	5.0 mg/m ³ in respirable form	5.0 mg/m ³ in respirable form
Silicon dioxide (Crystalline Quartz)	14808-60-7	< 1		
Others		Not Detectable	0.1 mg/m ³	0.1 mg/m ³

INGREDIENT HAZARD STATEMENT – This product contains less than 1% crystalline quartz (CAS#14808-60-7), which is in a non-respirable form. The product is in granular form, and packed in bags for use as a desiccant. Therefore, no exposure to quartz or clay dust is anticipated under normal use of this product.

CARCINOGENICITY

NTP? NO	OSHA? NO
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Prolonged or repeated exposure may cause lung injury. Unless otherwise noted, all values are reported as 8-hour Time Weighted Averages (TWA's) and total dust (particulates only). ALL ACGIH TLV's refer to the 1989-90 standards. All OSHA PEL's refer to 49 CFR Part 1910 Air Contaminants: Final Rule, January 19, 1989.



Section III -- Physical Data

Appearance and Odor:	Red and white granules. No odor.
Melting Point:	N/A
Solubility in Water:	Insoluble
Bulk Density:	57-64 lbs./cu. Ft.
Percent Volatile by Weight at 150°C	< 3.0%

Section IV -- Fire Explosion Data

Fire and Explosion Hazard - Negligible fire and explosion hazard when exposed to heat or flame by reaction with incompatible substances.

Flash Point – Nonflammable

Firefighting media – Dry Chemical, water spray, or foam. For larger fires, use water spray fog or foam.

Firefighting – Nonflammable solids, liquids or gases: Cool containers that are exposed to flames with water from the side until well after fire is out. For massive fire in enclosed area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of the tank due to fire.

Section V -- Health Hazard Data

This material is normally packaged and contained in a bag. If the bag is open, the resulting dust is classified a nuisance dust, and may cause health hazards when inhaled, ingested or in contact with the eyes and skin. Prolonged inhalation may cause irritation to the upper respiratory tract and/or lung damage. If large amounts are ingested, intestinal disorders may occur. Contact with eye tissue may result in irritation.

Prolonged or repeated contact with the skin in the absence of proper hygiene may cause irritation.

Clay mineral may contain small amount crystalline silica (quartz). Inhalation of crystalline silica in the respirable range in excess of the TLV may result in an increase in the risk of serious respiratory disease. Avoid breathing the dust. Use NIOSH/MSHA approved respirators when the TLV for crystalline silica be exceeded.



First Aid (Inhalation) – Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Get medical attention immediately.

First Aid (Ingestion) – If large amounts have been ingested, give emetics to cause vomiting. Stomach siphon may be applied as well. Milk and fatty acids should be avoided. Get medical attention immediately.

First Aid (Eyes) – Wash eyes immediately and carefully for 30 minutes with running water, lifting upper and lower eyelids occasionally. Get prompt medical attention.

First Aid (Skin) – To avoid repeated or prolonged contact with these chemical, use good hygienic practices. Wash with soap and a large amount of water. Get medical attention if irritation or inflammation develops.

Section VI -- Reactivity Data

Reactivity – Is stable under normal temperatures and pressures in sealed containers. Hazardous polymerization will not occur.

Section VII -- Spill or Leak Procedures

Notify safety personnel of spills or leaks. Clean-up personnel need protection against inhalation of dusts or fumes. Eye protection is required. Vacuuming and/or wet methods of cleanup are preferred. Place in appropriate containers for disposal, keeping air borne particulates at a minimum. Clay is slippery when wet.

Disposal – Consult applicable local, state, and federal regulations to select the method of disposal.

Section VIII -- Special Protection Information

Respiratory Protection – Provide a NIOSH/MSHA jointly approved respirator in the absence of proper environmental control. Contact your safety equipment supplier for proper mask type.

Ventilation – Provide general and/or local exhaust ventilation to keep exposures below the TLV. Ventilation used must be designed to prevent spots of dust accumulation or recycling of dusts.



Protective Clothing – Wear protective clothing, including long sleeves and gloves, to prevent repeated or prolonged skin contact.

Eye Protection – Chemical splash goggles designed in compliance with OSHA regulations are recommended. Consult your safety equipment supplier.

Section IX -- Storage Precautions

Absorbents are to be stored in dry, well-ventilated place, below 115°F, away from heat source. Keep them in tightly closed container. Protect container from physical damage. Always reseal container and protective moisture barrier liner after use.

Section X

HMIS (Hazardous Material Identification System) for this product is as follows:

Health Hazard	0
Flammability	0
Reactivity	0
Personal Protection	HMIS assigns choice of personal protective equipment to the customer, as the raw material supplier is unfamiliar with the condition of use

Section XI

Covering packing (Tyvek®, composite paper or non-woven) and the contents (desiccants) can be disposed as normal waste. There is no biological accumulation.

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