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Item#0395-0967

Fuller's Earth

Date Prepared: 04/10/07

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

Product Name: Fuller's Earth

Chemical Family: Magnesium Aluminum Silicate

CAS Number: 8031-18-3

HMIS: Health 0
Flammability 0
Reactivity 0

Emergency Telephone Numbers:

Humco Holding Group, Inc. 800-662-3435

Chemtrec 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT INFORMATION

0% to 10% Respirable free Silica, Crystalline Quartz.

SECTION 3 PHYSICAL DATA

Boiling Point (°F): More than 1000 **Vapor Density:** Not Applicable

Vapor Pressure (mmHg): Not Applicable **Solubility in Water:** Insoluble

Specific Gravity: 1.47 **Percent Volatile by Weight:** 0

Appearance & Odor: Gray, tan or reddish tan powder with earthy odor.

Evaporation Rate: 0

SECTION 4 FIRE & EXPLOSION HAZARD DATA

Flash Point: Non-flammable **Flammable Limits:** LEL – non-flammable
UEL – non-flammable

Extinguishing Media: Non-combustible **Special Fire Fighting Procedures:** None

Unusual Fire & Explosion Hazards: When a polyunsaturated liquid is absorbed, place in a covered metal container to avoid spontaneous combustion.

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SECTION 5

HEALTH HAZARD DATA

Threshold Limit Values:

OSHA/PEL: Classified as a nuisance dust when less than 1% crystalline silica is present, PEL 5.00 mg/M³ (respirable)

If greater than 1% crystalline silica, then exposure shall not exceed an 8 hour time-weighted average limit as stated in 29 CFR S 1910.1000 Table Z-3 for mineral dusts, specifically "Silica: Crystalline: Quartz (respirable)."

Crystalline Quartz (respirable)	Mppcf	250	mg/M ³	10 mg/ M ³
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	% SiO ₂ + 5		% SiO ₂ + 2	
Quartz (Total Dust)			30 mg/M ³	

			% SiO ₂ + 2	

ACGIH TLV: Classified as nuisance dust when less than 1% Crystalline Silica
TLV – TWA 10 mg/M³ (total dust)
5 mg/M³ (respirable)

If a greater than 1% crystalline silica, the TLV- TWA 0.1 mg/M³ (respirable crystalline quartz). See threshold limit value and biological exposure indices for 1987 – 1988, American Conference of Governmental Industrial Hygienists.

Other Limits Recommended: National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration 0.05 mg/M³ (respirable crystalline quartz) as determined by a full-shift sample up to 10-hour working day, 40-hour work week. See NIOSH criteria for a recommended Standard Occupational Exposure to Crystalline Silica.

Route(s) of Entry:

Inhalation: Yes

Skin: No

Ingestion: No

Health Hazards (Acute & Chronic): May be harmful if inhaled in sufficient quantities. Prolonged exposure to dust of Fuller's Earth may cause a relatively benign lung disease, though there is a risk of the development of massive fibrosis. Repeated and prolonged exposure to respirable crystalline quartz which may be contained in fuller's earth dust may cause delayed (chronic) lung injury (silicosis). Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Acute, or rapidly silicosis has not been observed in Fuller's Earth exposures.

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SECTION 5

HEALTH HAZARD DATA Cont'd

Carcinogenicity:

NTP: No

IARC Monographs: Yes

OSHA Regulated: No

It is to be noted that IARC in Vol. 42 (1987) of its monograph on the evaluation of the carcinogenicity risk of chemicals to humans reports that there is limited evidence for the carcinogenicity of attapulgite to experimental animals and there is inadequate evidence for the carcinogenicity of attapulgite to humans (IARC Class 3). Fuller's Earth including attapulgite and Montmorillonite, like many naturally – occurring minerals, may contain some free silica and crystalline silica, by itself, has been classified by IARC as a Class 1 or known carcinogen. (IARC Vol. 68 (1996)).

Signs and Symptoms of Exposure: Undue breathlessness, wheezing, cough and sputum production.

Medial Conditions Generally Aggravated by Exposure: Pulmonary function may be reduced by inhalation of respirable crystalline silica that may be contained within Fuller's Earth dust. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

Emergency & First Aid Procedures: For Fuller's Earth in eyes, wash immediately with water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, seek medical attention as needed.

SECTION 6

REACTIVITY DATA

Stability: Product is Stable.

Incompatibility: Polyunsaturated liquids.

Hazardous Decomposition Products: None.

Hazardous polymerization will not occur.

SECTION 7

PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Take in Case Material is Release or Spilled: Use dustless methods (vacuum) and place into closable container for disposal, or flush with water. Do not dry sweep. Wear protective equipment specified below.

Waste Disposal Method: Dispose in accordance with Federal, State and local regulations.

Precautions to be Taken in Handling and Storing: Avoid breakage of bagged material or spills of bulk material. See control measures in Section VIII.

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SECTION 7

PRECAUTIONS FOR SAFE HANDLING & USE Cont'd

Precautions for Safe Handling and Use

Other Precautions: Use dustless systems for handling, storage and clean up so that airborne dust does not exceed the PEL. Use adequate ventilation and dust collection. Practice good house-keeping. Do not permit dust to collect on walls, floors sills, ledges, machinery or equipment. Maintain, clean and fit test respirators in accordance with OSHA regulations. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing, which has become dusty. See also control measures in Section VIII.

See OSHA Hazard Communication Rule 29 CFR Sections 1910.1200, 1915.00, 1917.28, 1918.90, 1926.59 and 1928.21, and state and local worker or community "Right to Know" laws and regulations. We recommend that smoking be prohibited in all areas where respirators must be used. Warn your employees (and your customers-users in case of resale) by posting and other means of the hazard and OSHA precautions to be used. Provide training for employees about OSHA precautions. See Also American Society for testing and materials (ASTM) standard practice E1132-86, standard practice for health requirements relating to occupational exposure to quartz dust."

SECTION 8

CONTROL MEASURES

Respiratory Protection: The following chart specifies the types of respirators which may provide respiratory protection for the respirable crystalline silica that may be contained in Fuller's Earth dust.

Respiratory protection for respirable crystalline silica that may be contained in Fuller's Earth dust.

Condition: Minimum respiratory protection

5 * PEL or less: Any dust respirator

10 * PEL or less: Any dust respirator, except single-use or quarter-mask respirator. Any fume respirator or high efficiency particulate filter respirator. Any self-contained breathing apparatus.

50 * PEL or less: A high efficiency particulate filter respirator with a full face piece. Any supplied-air respirator with a full facepiece, helmet, or hood. Any self-contained breathing apparatus.

500 * PEL or less: A powered air purifying respirator with a high efficiency particulate filter. A type C supplied air respirator operated in a pressure demand or other positive pressure or continuous flow mode.

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SECTION 8

CONTROL MEASURES Cont'd

Greater than 500 * PEL: Self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode or entry and escape from a combination respirator which includes a type C supplied-air respirator with a full facepiece operated in pressure-demand or other positive pressure continuous-flow mode and an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

Local Exhaust: Use sufficient local exhaust to reduce the level of respirable dust to the PEL. See ACGIH "Industrial Ventilation, A Manual of Recommended Practice," the latest edition.

Protective Gloves: Optional

Eye Protection: Wear protective shield (safety glasses) when exposed to dust particles.

Other Protective Clothing or Equipment: Optional

Work/Hygienic Practices: Avoid creating and breathing dust.