



MSDS - Diatomaceous Earth

Issue Date: May 1, 2008

Section 1. Product Information

Product Identifier: Diatomaceous Earth

Trade Name: Red Lake Earth

Chemical Family: Silica

Material Use: Anti-caking agent

24 Hour Emergency Telephone: CANUTEC (613) 996-6666

Distributed by: Pestell Minerals & Ingredients, New Hamburg, ON Canada

Section 2. Hazardous Ingredients

Diatomaceous Earth - 65%	CAS NO: 61790-53-2
Free Crystalline Silica or Silica quartz: <1%	CAS NO: 14808-60-7

Section 3. Physical Data

Physical State: solid	*	Odor & Appearance: No odor, butt to off-white granules
Vapor Pressure (mm Hg): N/A	*	Density (20°C): 35lbs/cu.ft
Vapor Density (Air=1): N/A	*	Solubility in Water: Insoluble, forms colloidal suspension
Specific Gravity (Water=1): 1.8	*	pH: 5-6 (10% slurry) slightly acidic in water
Freezing Point: N/A	*	-
Boiling Point: N/A	*	-

Section 4. Fire and Explosion Data

Means of Extinction: N/A	*	Special Procedures: N/A
Flashpoint and Method: N/A	*	Upper Flammability Limit: N/A
Auto-ignition Temperature: N/A	*	Lower Flammability Limit: N/A
Hazardous Combustion Prod: N/A	*	Sensitivity to Static Discharge: No
Explosion Data: Sensitive to Impact	*	Sensitivity to Static Discharge: No

Section 5. Reactivity Data

Chemical Stability: Product is stable

Incompatibility to Other Substances: Hydrofluoric Acid - silica may react violently

Reactivity: Not applicable

Hazardous Decomposition: Not applicable

Section 6. Toxicological Properties

Routes of Exposure

Inhalation: Acute (short term) exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough. Chronic (long term) exposure to crystalline free silica contained by airborne diatomaceous earth and bentonite dust where levels are higher than TLV's may lead to the development of silicosis or other respiratory problems. Persistent dry cough, throat irritation and labored breathing on exertion are symptomatic. Exposure may aggravate upper respiratory tract diseases such as asthma, bronchitis or emphysema.

Eyes: Irritant

Skin: Possible drying results in dermatitis

Ingestion: No adverse effects.

Permissible Exposure Limits	OSHA PEL	ACGIH	CAS
For airborne, nuisance dusts	8 hr TWA	TLV	8 hr EL
Diatomaceous Earth	-	-	-
Total Dust	15 mg/m ³	Not detected	4 mg/m ³
Respirable Dust	5 mg/m ³	Not detected	1.5 mg/m ³
Crystalline Quartz (respirable)	0.1 mg/m ³	0.1 mg/m ³	0.1 mg/m ³

Note: If crystalbolite or tridymite are present, use 1/2 of the OSHA PEL or ACGIH TLV for crystalline quartz.

Diatomaceous Earth is listed and IARC Monograph 42 (1987) rates crystalline free silica as Category 2A

Effects of Chronic Exposure to Product

Exposure to quantities of crystalline silica dust, in the forms of quartz, crystalbolite or tridymite, may be present in airborne dust. If the concentration levels are in excess of the OSHA Permissible Limit (PEL-TWA 8 Hrs) of 0.05mg/m³ or the ACGIH Threshold Limit Value (TLV) or 0.05mg/m³, the crystalline silica is a known cause of silicosis, a progressive, sometimes fatal lung disease. From the International Agency for Cancer Research (IARC), a 1987 review of "Silica and some Silica" coded Monograph 42 concluded crystalline free silica was rated in Category 2AA as "probable carcinogen to humans". OSHA has not classified Crystalline Free Silica as a carcinogen.

Inhalation of crystalline free silica dust below the permissible exposure limits of occupational standard setting agencies will minimize, if not eliminate potential risk of lung cancer.

Section 7. Preventive Measures

Personal Protective Equipment

Bureau of Mines or NIOSH approved respirators for protection against pneumoconiosis producing dusts recommended when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use quarter or half mask respirator with replacement dust filter or single use dust respirator with valve. If dust concentration is greater than ten (10) times and less than one hundred (100) times the PEL use full faceplate respirators with replaceable dust filter; if greater than one hundred (100) and less than two hundred (200) times the PEL use power air purifying (positive pressure) respirator with replaceable filter; if greater than two hundred (200) times the PEL use type C, automatic-air respirator, continuous flow type (positive pressure), with full face piece, head or helmet.

Gloves: Not needed under normal conditions of use

Respirator: Avoid breathing dust. Use respirators approved NIOSH/OSHA for silica bearing dust

Eye: Use protective goggles in high dust conditions

Footwear: As required on jobsite

Clothing: Wear coveralls in high dust conditions

Engineering Controls: Local: Control with recommended TLV/PEL mechanical filtration to minimize dust. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation system.

Leak and Spill Procedure: Vacuum clean spillage, wet sweep or wash away. Avoid creating dust.

Waste Disposal: Dispose of in accordance with local, state and federal regulations.

Handling Procedures: Avoid creating dust. Repair or properly dispose of broken bags. Use wet process or enclosed handling.

Storage Requirements: Store in a dry place to maintain product quality. Keep containers closed and in good condition. Repair damaged containers.

Section 8. First Aid Measures

Inhalation: Remove victim to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Acute inhalation can cause dryness of the nasal passage and congestion of the upper respiratory tract.

Ingestion: Do not induce vomiting. Short term exposure not considered harmful. Drink generous amounts of water to reduce bulk and drying effects.

Eye: Wash with generous quantities of water of at least 15 minutes. Consult physician if irritation persists. May cause irritation or inflammation.

Skin Contact: Remove contaminated clothing. Wash with soap and water until clean. Use moisture renewing lotions if dryness occurs. Not absorbed by the skin. May cause dryness.

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