

CHCALC

Calcium Carbonate / Whiting
MATERIAL SAFETY DATA SHEET

Issue Date: August, 1997

MSDS Number: UCI 3

MANUFACTURER

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HMIS INFORMATION

HEALTH 1
FLAMMABILITY 0
REACTIVITY 0
PERSONAL PROTECTION E

PRODUCT IDENTIFICATION

PRODUCT NAME: Aerogem, Calcium Carbonate
CHEMICAL NAME: Calcium Carbonate
CHEMICAL FAMILY: Limestone, Marble, Dolomite
FORMULA: CaCO₃ + impurities; CaCO₃ + MgCO₃ + impurities
DESCRIPTION: A fine mineral powder
CAS #: 1317-65-3

SECTION 1 - TYPICAL INGREDIENTS DETERMINED BY X-RAY DIFFRACTION

MINERAL OR CHEMICAL	WEIGHT %	ACGIH TLV	OSHA PEL	CAS #
Calcium Carbonate	>98.0%	10 mg/m ³ (1)	5 mg/m ³	1317-65-3
Quartz (Crystalline Silica) (3)	<2.0%	0.1 mg/m ³ (1)	10 mg/m ³	14808-60-7

The ACGIH TLV (1) for this mixture is 3.3 mg/m³ utilizing the general formula:
TLV of mixture = 1 / (fa/TLVa + fb/TLVb + ... + fn/TLVn)

NOTES:

(1) Respirable dust, TWA for 8 hour shift/40 hour week.

(3) NIOSH TWA = 0.05 mg/m³

Calcium carbonate contain crystalline silica at levels between 0.01% and 2.0% and varies naturally. IARC MONOGRAPH VOLUME 68, 1997 concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in humans. IARC classification: Group 1.

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

*****EMERGENCY*****

ROCKY MOUNTAIN POISON CONTROL CENTER (24 HOURS) - (303) 623-5716

EYE CONTACT: For direct contact, flush the affected eye(s) with clean water while holding the eyelids open. If irritation or redness develops, seek medical attention.

SKIN CONTACT: Usually of no general concern. Broken skin can be cleansed with mild soap and water. If irritation or redness develops and persists, seek medical attention.

INHALATION:
(BREATHING) Primary route of entry. If irritation of nose or throat develops, move away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing or breathing difficulties develop, artificial respiration or oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION:
(SWALLOWING) No treatment necessary.

SECTION III - POTENTIAL ADVERSE HEALTH EFFECTS

EYE CONTACT:	As with most dusts of particulate materials, calcium carbonate can cause temporary discomfort and irritation if accidentally introduced into the eye.
SKIN CONTACT:	No adverse effects are known as a consequence of application to unbroken skin.
INHALATION: (BREATHING)	Primary route of entry. Symptoms of acute accidental exposure would be non-specific and similar to the inhalation of any dust. Such symptoms might include paroxysmal coughing, wheezing, difficult breathing, and upper respiratory tract irritation.
INGESTION: (SWALLOWING)	No adverse affects expected.
CARCINOGENICITY:	Calcium carbonate contain crystalline silica. IARC MONOGRAPH VOLUME 68, 1997 concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in humans. IARC classification: Group 1.
EFFECTS OF REPEATED OVERDOSE:	Repeated and prolonged occupational exposure to calcium carbonate dust containing silica may cause silicosis. Cough from smoking, shortness of breath, wheezing, or impaired pulmonary function may be aggravated by inhalation of dust. IARC states that there is limited evidence of carcinogenic effects in humans from inhalation of crystalline silica.
NOTES TO PHYSICIAN:	There are no specific antidotes for acute overexposure. Treatment should be directed at the control of the symptoms and clinical condition. Individuals with active pulmonary disease should not be assigned to a heavy calcium carbonate dust environment. Medical monitoring may be appropriate for those with long-term exposure to materials containing crystalline silica. See Section IX for further information.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:	Appropriate engineering controls and work practices should be used to minimize exposure.
RESPIRATORY PROTECTION:	Avoid inhalation of dust. Use a NIOSH approved respirator as appropriate to minimize exposure.
PROTECTIVE CLOTHING:	Safety glasses should be worn at all times. Other items of protective clothing are recommended for workers who suffer from dermatitis, for workers who are susceptible to irritation and dry skin, or as otherwise appropriate.
OTHER PROTECTIVE EQUIPMENT:	Eye wash stations or a source of clean water should be available in work area for flushing eyes. Areas where employees may be exposed to high levels of dust, and the approaches to such areas, should bear appropriate warning signs.
TRAINING:	Employees should be informed as to the presence of crystalline silica in this product and trained in the proper use of this product as required under applicable regulations.

SECTION V - PHYSICAL DATA

BOILING POINT	FREEZING POINT	EVAPORATION POINT	% VOLATILE
Not Applicable	Not Applicable	Not Applicable	Slight (moisture)
VAPOR DENSITY	VAPOR PRESSURE	SPECIFIC GRAVITY	PH
None	None	2.70 - 2.71	(5% slurry): 8.9-9.2
% SOLUBLE IN WATER	ODOR	APPEARANCE	
Slight	Odorless	White to off white in color	

SECTION VI - REACTIVITY DATA

STABILITY

Calcium Carbonate is stable
HAZARDOUS DECOMPOSITION PRODUCT: None
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: None

INCOMPATIBILITY

Incompatible with alum or ammonium salts. Reacts with strong acids to liberate carbon dioxide. Mixture with aluminum may explode on heating. Mixture with magnesium may explode when heated in a current of hydrogen gas. Contact with fluorine may cause violent reaction on ignition.

SECTION VII - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	FLAMMABILITY LIMITS	EXTINGUISHING MEDIA
None	None	None required

FIRE AND EXPLOSION HAZARDS: None
FIRE FIGHTING PROCEDURES: None required

SECTION VIII - SPILL OR LEAK PROCEDURES

HOUSEKEEPING:	All surfaces should be maintained as free as practicable of accumulations of dusts.
STEPS TO BE TAKEN IN RELEASE OR SPILL:	Minimize the generation of dust during cleanup. Use of a water wash down is not recommended unless the spilled material is already wet; walking surfaces coated with wet materials will be extremely slippery.
WASTE DISPOSAL METHOD:	Dispose of in accordance with federal and state regulations. Calcium carbonate is not a hazardous waste under RCRA criteria (40 CFR Part 261).
COMMUNITY RIGHT TO KNOW:	Calcium carbonate is regulated under EPCRA (SARA Title III); reports should be made as required under that act. Respirable crystalline silica is listed as a carcinogen under California's "Proposition 65."

SECTION IX - SPECIAL PRECAUTIONS:

Surfaces subject to spills or dusting with this product can become slippery. Keep all floors, workstations, stairs and handrails clean and dry.

Respirable dust levels should be monitored on a regular basis.

ACGIH suggests that periodic physical examinations be given to those employees who may be exposed to crystalline silica concentrations greater than 50% of the TLV. Additional or increased medical surveillance should be implemented as appropriate.

SECTION X - TRANSPORTATION REQUIREMENTS

Department of Transportation classification: Not hazardous by DOT regulations.

DOT proper shipping name: Not regulated.

SECTION XI - ADDITIONAL

Calcium carbonate is on the TSCA Chemical Substance Inventory.

This product does not contain quantifiable concentrations of asbestos, asbestiform or non-asbestiform tremolite, actinolite, or anthophyllite. This material contains crystalline silica.

Sources used in the preparation of this MSDS include: the ACGIH TLV and Biological Indices for 1993-1994 (ISBN 1-882417-03-8); 29 CFR Part 1910, RIN 1218-AB26 Air Contaminants, Vol. 58, No. 124, June 1993.

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