

GREFCO MINERALS INC. 23705 Crenshaw Blvd., Suite 101, Torrance, CA 90505

## MATERIAL SAFETY DATA SHEET

No.0031 (2 pages)

Revised 11/5/99

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### I. PRODUCT IDENTIFICATION

Trade Name(s)	Dicalite (All Flux-calcined Products)	CAS #:	68855-54-9
Generic Name:	Flux-Calcined Diatomaceous Earth	Formula:	Predominantly SiO <sub>2</sub>
Chemical Name:	Silica		
Manufacturer:	GREFCO MINERALS INC.		
Address:	23705 CRENSHAW BLVD., SUITE 101	Tel. #:	(B) (310) 517-0700 (904) 355-0096 (610) 667-6640
City:	TORRANCE	State:	CA
		Zip:	90505
			(H) (724) 443-5556 (314) 926-2977

### II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PERMISSIBLE EXPOSURE LIMIT
Flux-Calcined Diatomaceous Earth	68855-54-9	100	0.069 mg/m <sup>3</sup> Respirable Mass
Contains Crystalline Silica			
(Quartz - up to 5%)	14808-50-7		(PEL calculation based on up to 75%
(Cristobalite - up to 70%)	14464-46-1		crystalline silica.)

### III. PHYSICAL DATA

Appearance and Odor:	White to off white powder; odorless.		
Boiling Point:	N/A	Evaporation Rate:	N/A
Vapor Pressure:	N/A	Specific Gravity (water = 1):	2.35
Water Solubility (%):	Slight	Melting Point:	N/A
Vapor Density (Air=1):	N/A	% Volatile by Volume:	N/A

### IV. FIRE AND EXPLOSION DATA

Flash Point (Method):	Nonflammable	NFPA Flammable/Combustible	Nonflammable
Flammable Limits:	N/A	Liquid Classification:	N/A
Extinguishing Media:	N/A	Auto-ignition Temperature:	N/A
Unusual Fire or Explosion Hazards:	None	Special Fire-Fighting Procedures:	None

### V. REGULATORY INFORMATION

Crystalline silica has been classified as a substance which may reasonably be anticipated as a carcinogen by NTP.

OSHA Hazard Communication Standard, 29CFR 1910-1200: material is considered hazardous.

RCRA: This material is not defined as hazardous waste per 40 CFR 261.

TSCA: This material is listed in the TSCA inventory, and is not otherwise regulated by TSCA sec. 4,5,6,7, or 12.

CERCLA: Material is not reportable under CERCLA, local requirements may vary.

SARA: 311/312 Hazard categories - immediate and delayed health, 313 reportable ingredients - none.

California Prop. 65: This material contains a chemical known to the State of California to cause cancer.

### VI. HEALTH HAZARDS

#### A. Summary/Risks

This material contains crystalline silica (see section II). Long term inhalation of crystalline silica dusts may cause lung disease (silicosis). Crystalline silica has been classified as carcinogenic to humans (Group 1) by IARC, a unit of the World Health Organization.

Medical Conditions Which May Be Aggravated: Pre-existing upper respiratory and lung disease, (such as bronchitis, emphysema, asthma, or others).

HEALTH	- 2
FLAMMABILITY	- 0
REACTIVITY	- 0
PERSONAL PROTECTION	- E

( See special precautions - page 2)

Target Organ(s):	Lungs	Primary Entry Route(s):	Inhalation
Acute Health Effect:	Transitory upper respiratory irritant.		
Chronic Health Effects:	Long term inhalation of dust levels in excess of the PEL may cause lung disease (silicosis). IARC has classified crystalline silica as carcinogenic to humans.		

VI. HEALTH HAZARDS		B. Signs/Symptoms of Overexposure	
Inhalation:	Coughing, irritation of nose and throat; congestion may occur upon overexposure.		
Skin Contact:	N/A	Skin Absorption:	N/A
Ingestion:	Not hazardous.	Eyes:	Temporary irritation and/or inflammation.
VI. HEALTH HAZARDS		C. First Aid/Emergency Procedures	
Inhalation:	Remove from dusty area; drink water to clear throat; blow nose to evacuate dust.		
Skin Contact:	N/A	Eyes:	Do not rub eyes. Flush eyes with copious amounts of water to remove any dust particles.
Skin Absorption:	N/A	Consult a physician if irritation persists.	
Ingestion:	N/A		
VII. REACTIVITY DATA			
Stability:	Material is stable. Hazardous polymerization will not occur.		
Chemical Incompatibilities:	Hydrofluoric acid		
Conditions to Avoid:	None in designed use. Avoid contact with hydrofluoric acid.		
Hazardous Decomposition Products:	Reacts with Hydrofluoric acid to form toxic silicon tetrafluoride gas.		
VIII. SPILL OR LEAK PROCEDURES			
Procedures for Spill/Leak:	Vacuum clean or wet sweep; avoid dusting; use a dust suppressant when sweeping.		
Waste Management:	Not considered as hazardous wastes by RCRA (40 CFR Part 261). Place waste and spillage in closed containers. Dispose of in approved landfill. RQ-N/A		
IX. SPECIAL PROTECTION INFORMATION			
Goggles:	Normally not required. May use safety eyewear to protect from dusts.		
Gloves:	Normally not required. May use gloves to protect overly-sensitive skin.		
Respirator:	Use NIOSH approved respirators to protect against silicosis producing dusts.		
Ventilation:	Use adequate exhaust ventilation and/or dust collection to keep dust levels below PEL.		
Special Considerations for Repair/Maintenance of Contaminated Equipment:	Insure proper respiratory protection.		
X. SPECIAL PRECAUTIONS			
Storage Segregation Hazard Classes: N/A			
*** ALWAYS SEGREGATE MATERIALS BY MAJOR HAZARD CLASS ***			
Special Handling/Storage:	Store in dry place. Repair all broken bags immediately. Avoid creating dust. Maintain good housekeeping practice.		
Special Workplace Engineering Controls:	Adequate ventilation and appropriate local exhaust where needed to keep dust levels below PEL.		
Other:	Comply with all Federal, State and local regulations.		
Prepared/Revised by: Bill White		Title: Sr. Process Chemist	

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable Federal and State law(s). However, no warranty or representation with respect to such information is intended or given.