



**SIGMA-ALDRICH**

## Material Safety Data Sheet

Date Printed: 08/23/2003  
Date Updated: 04/28/2003  
Version 1.20

### Section 1 - Product and Company Information

Product Name	Diatomaceous earth, SiO <sub>2</sub> approx. 95%		
Product Number	D3877		
Brand	Sigma Chemical		
Company	Sigma-Aldrich		
Street Address	3050 Spruce Street		
City, State, Zip, Country	SAINT LOUIS, MO 63103 US		
Technical Phone:	314 771 5765	Emergency Phone:	414 273 3850 Ext. 5996
Fax:	800 325 5052		

### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
CELITE	91053-39-3	No
Formula	C72H110N20O15	
Synonyms	Celpure	

### Section 3 - Hazards Identification

**Emergency Overview**  
Harmful.  
Irritating to eyes and respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
Target organ(s): Lungs.

**HMS Rating**  
Health: 2\*                      Flammability: 0                      Reactivity: 0

**NFPA Rating**  
Health: 2                      Flammability: 0                      Reactivity: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

**Oral Exposure**  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**Dermal Exposure**  
In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure**  
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

### Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

**Extinguishing Media**  
Suitable  
Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting**  
**Protective Equipment**  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
**Specific Hazard(s)**  
Emits toxic fumes under fire conditions.

### Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s)**  
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**Methods for Cleaning Up**  
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

**Handling**  
**User Exposure**  
Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage**  
Suitable  
Keep tightly closed.

### Section 8 - Exposure Controls / PPE

**Engineering Controls**  
Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment**  
**Respiratory**  
Government approved respirator.  
**Hand**  
Compatible chemical-resistant gloves.  
**Eye**  
Chemical safety goggles.

**General Hygiene Measures**  
Wash thoroughly after handling.

### Section 9 - Physical/Chemical Properties

**Appearance**  
**Physical State**  
Solid

Sigma Chemical - D3877  
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Molecular Weight: 1,495 AMU

pH N/A  
BP/BP Range N/A  
MP/MP Range N/A  
Freezing Point N/A  
Vapor Pressure N/A  
Vapor Density N/A  
Saturated Vapor Conc. N/A  
SG/Density N/A  
Bulk Density N/A  
Odor Threshold N/A  
Volatile% N/A  
VOC Content N/A  
Water Content N/A  
Solvent Content N/A  
Evaporation Rate N/A  
Viscosity N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point °F N/A  
Flash Point °C N/A  
Explosion Limits N/A

Flammability N/A  
Autoignition Temp N/A  
Solubility N/A

N/A = not available

#### Section 10 - Stability and Reactivity

**Stability**  
Stable.  
Stable.  
**Materials to Avoid**  
Strong acids, Hydrogen fluoride.

**Hazardous Decomposition Products**  
**Hazardous Decomposition Products**  
Nature of decomposition products not known.

**Hazardous Polymerization**  
**Hazardous Polymerization**  
Will not occur.

#### Section 11 - Toxicological Information

**Route of Exposure**  
**Skin Contact**  
May cause skin irritation.  
**Skin Absorption**  
May be harmful if absorbed through the skin.  
**Eye Contact**  
Causes eye irritation.  
**Inhalation**  
Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

**Ingestion**  
May be harmful if swallowed.

**Target Organ(s) or System(s)**  
Lungs.

**Signs and Symptoms of Exposure**  
Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue. Crystalline silica is classified as group 2A "probably carcinogenic to humans" by IARC and "sufficient evidence" of carcinogenicity by the NTP. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

#### Section 12 - Ecological Information

No data available.

#### Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**  
Contact a licensed professional waste disposal service to dispose of this material.  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.  
Observe all federal, state, and local environmental regulations.

#### Section 14 - Transport Information

**DOT**  
**Proper Shipping Name:** None  
**Non-Hazardous for Transport:** This substance is considered to be non-hazardous for transport.

**IATA**  
**Non-Hazardous for Air Transport:** Non-hazardous for air transport.

#### Section 15 - Regulatory Information

**EU Additional Classification**  
**Symbol of Danger:** Xn  
**Indication of Danger**  
Harmful.  
**Risk Statements** R: 36/37 48/20  
Irritating to eyes and respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
**Safety Statements** S: 26 36  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

**US Classification and Label Text**  
**Indication of Danger**  
Harmful.  
**Risk Statements**  
Irritating to eyes and respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
**Safety Statements**  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.  
**US Statements**  
Target organ(s): Lungs.

**United States Regulatory Information**  
**SARA Listed:** No

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**Section 16 - Other Information**

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**Disclaimer**

For R&D use only. Not for drug, household or other uses.

**Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2003 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.