



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** VOLTEX®  
**Version #** 05  
**Revision date** 15-June-2011  
**CAS #** Mixture  
**Manufacturer information** CETCO  
Remediation Technology  
2870 Forbs Avenue  
Hoffman Estates, IL 60192 US  
www.cetco.com  
General Information (800) 527-9948  
Emergency (800) 424-9300

## 2. Hazards Identification

**Emergency overview** This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica.

**Potential health effects**

**Routes of exposure** Inhalation. Eye contact.

**Eyes** Dust or powder may irritate eye tissue.

**Skin** Non-irritating to the skin.

**Inhalation** Repeated or prolonged inhalation may cause toxic effects. For additional information on inhalation hazards, see Section 11 of this safety data sheet.

**Ingestion** No hazard in normal industrial use. No significant adverse effects are expected upon ingestion of the product.

**Target organs** Lungs.

**Chronic effects** Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
BENTONITE	1302-78-9	60 - 100

  

Impurities	CAS #	Percent
QUARTZ	14808-60-7	

**Composition comments** This product contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 6%.

## 4. First Aid Measures

### First aid procedures

**Eye contact** Flush eyes immediately with large amounts of water. Get medical attention if irritation develops or persists.

**Skin contact** No special measures required. Get medical attention if irritation develops or persists.

**Inhalation** If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

**Ingestion** No special measures required. If ingestion of a large amount does occur, seek medical attention.

**Notes to physician** Provide general supportive measures and treat symptomatically.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	None known.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use any media suitable for the surrounding fires. Dry chemical, CO2, water spray or regular foam.
<b>Protection of firefighters</b>	
<b>Protective equipment for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Fire fighting equipment/instructions</b>	Not available.
<b>Explosion data</b>	
<b>Sensitivity to static discharge</b>	Not available.
<b>Sensitivity to mechanical impact</b>	Not available.
<b>Hazardous combustion products</b>	None known.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Wear a dust mask if dust is generated above exposure limits.
<b>Environmental precautions</b>	No special environmental precautions required.
<b>Methods for containment</b>	None necessary.
<b>Methods for cleaning up</b>	Avoid the generation of dusts during clean-up. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

## 7. Handling and Storage

<b>Handling</b>	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Storage</b>	Guard against dust accumulation of this material. No special storage conditions required. No special restrictions on storage with other products.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Impurities	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	3.0000 mg/m3	Respirable fraction.
QUARTZ (14808-60-7)	TWA	10.0000 mg/m3 0.0250 mg/m3	Total dust. Respirable fraction.

#### Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)

Impurities	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	10.0000 mg/m3	Inhalable particulate.
QUARTZ (14808-60-7)	TWA	3.0000 mg/m3 0.1000 mg/m3	Respirable particles. Respirable fraction.

#### Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Impurities	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	10.0000 mg/m3	Total dust.
QUARTZ (14808-60-7)	TWA	0.1000 mg/m3	Respirable dust.

<b>Exposure guidelines</b>	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
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<b>Engineering controls</b>	If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear dust goggles.
<b>Skin protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

## 9. Physical & Chemical Properties

<b>Appearance</b>	The product consists of bentonite granules between geotextile layers
<b>Physical state</b>	Solid.
<b>Form</b>	Mat or Fabric
<b>Color</b>	Various.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapor pressure</b>	0 hPa estimated
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Negligible
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	Not available.
<b>Flash point</b>	Not flammable
<b>Flammability limits in air, upper, % by volume</b>	Not explosive
<b>Flammability limits in air, lower, % by volume</b>	Not explosive
<b>Auto-ignition temperature</b>	Not available.
<b>VOC</b>	0 % estimated
<b>Percent volatile</b>	0 % estimated

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	None known.
<b>Possibility of hazardous reactions</b>	Will not occur.

## 11. Toxicological Information

### Toxicological data

#### Impurities

QUARTZ (14808-60-7)

#### Test Results

Acute Oral LD50 Rat: 500 mg/kg

#### Sensitization

No sensitization responses were observed.

## Chronic effects

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)

According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

## Carcinogenicity

### IARC Monographs. Overall Evaluation of Carcinogenicity

QUARTZ (CAS 14808-60-7)

1 Carcinogenic to humans.

## 12. Ecological Information

### Ecotoxicological data

#### Product

#### Test Results

VOLTEX® (Mixture)

LC50 Fish: 22352.9 mg/l 96.00 hours estimated

#### Components

#### Test Results

BENTONITE (1302-78-9)

LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss):  
19000 mg/l 96.00 hours

### Ecotoxicity

This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

### Environmental effects

Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

### Persistence and degradability

Not available.

## 13. Disposal Considerations

### Disposal instructions

Dispose in accordance with all applicable regulations. Material should be recycled if possible.

## 14. Transport Information

### TDG

Not regulated as dangerous goods.

## 15. Regulatory Information

### WHMIS status

Controlled

### WHMIS classification

D2A - Other Toxic Effects-VERY TOXIC

### WHMIS labeling



### Inventory status

#### Country(s) or region

#### Inventory name

#### On inventory (yes/no)\*

Australia

Australian Inventory of Chemical Substances (AICS)

Yes

Canada

Domestic Substances List (DSL)

Yes

Canada

Non-Domestic Substances List (NDSL)

No

China

Inventory of Existing Chemical Substances in China (IECSC)

Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

<b>Recommended restrictions</b>	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.
<b>Further information</b>	This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
<b>HMIS® ratings</b>	Health: 1* Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 0 Instability: 0
<b>Disclaimer</b>	<p>The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.</p> <p>Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.</p>
<b>Prepared by</b>	EHS Department
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<b>This data sheet contains changes from the previous version in section(s):</b>	Product and Company Identification: Alternate Trade Names