



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name BENTOGROUT®
Version # 05
Revision date 11-Jul-2008
Manufacturer information CETCO
Building Materials Group
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2. Hazards Identification

Emergency overview Material can be slippery when wet.

Potential health effects

Routes of exposure Inhalation.

Eyes Dust or powder may irritate eye tissue.

Skin Non-irritating to the skin.

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

Ingestion No significant adverse effects are expected upon ingestion of the product.

Target organs Lungs.

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

Non-hazardous components	CAS #	Percent
BENTONITE	1302-78-9	90 - 100
Composition comments	Bentonite 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

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	Use any media suitable for the surrounding fires. Dry chemical, CO ₂ , water spray or regular foam.
Protection of firefighters	
Protective equipment and precautions for firefighters	Material can be slippery when wet

6. Accidental Release Measures

Personal precautions	Material can be slippery when wet. Wear a dust mask if dust is generated above exposure limits.
Environmental precautions	No special environmental precautions required.
Methods for containment	None necessary.
Methods for cleaning up	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

Handling	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.
Storage	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

U.S. - OSHA

Constituents	CAS #	Type	Value	Form
NUISANCE PARTICULATES	RR-00072-6	TWA	5 mg/m ³	(respirable fraction)
		TWA (total dust)	15 mg/m ³	(total dust)

Exposure guidelines	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
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ACGIH - Threshold Limit Values - TLV Basis - Critical Effects

QUARTZ 14808-60-7 lung cancer; pulmonary fibrosis

U.S. - OSHA - Final PELs - Table Z-3 Mineral Dusts

QUARTZ 14808-60-7 ((250)/(%SiO₂ + 5) mppcf TWA (respirable)); ((10)/(%SiO₂ + 2) mg/m³ TWA (respirable)); ((30)/(%SiO₂ + 2) mg/m³ TWA (total dust))

Engineering controls	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.
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Personal protective equipment

Eye / face protection	Wear dust goggles.
Skin protection	No special protective equipment required.
Respiratory protection	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.
General hygiene considerations	Eye wash fountain is recommended. Use good industrial hygiene practices in handling this material.

9. Physical & Chemical Properties

Appearance	Not available.
Color	Various.

Odor	None.
Odor threshold	Not available.
Physical state	Solid.
Form	Powder.
pH	7 - 9
Melting point	2192 °F (1200 °C) estimated
Freezing point	Not available.
Boiling point	2192 °F (1200 °C) estimated
Flash point	Non-flammable
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Non-explosive
Flammability limits in air, lower, % by volume	Non-explosive
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	2.4482 estimated
Relative density	2.448 g/cm3 estimated
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	0 % estimated
Percent volatile	0 % estimated

10. Chemical Stability & Reactivity Information

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

11. Toxicological Information

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

QUARTZ 14808-60-7 Oral LD50 Rat: 500 mg/kg

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

ACGIH - Threshold Limit Values - Carcinogens

QUARTZ 14808-60-7 A2 - Suspected Human Carcinogen

IARC - Group 1 (Carcinogenic to Humans)

QUARTZ 14808-60-7 Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources)

NTP (National Toxicology Program) - Report on Carcinogens - Known Human Carcinogens

QUARTZ 14808-60-7 Known Human Carcinogen

12. Ecological Information

Ecotoxicity

This material is not expected to be harmful to aquatic life.

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

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

Yes

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
Europe	European Inventory of New and Existing Chemicals (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)

State regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

U.S. - California - Proposition 65 - Carcinogens List

QUARTZ 14808-60-7 carcinogen, initial date 10/1/88 (airborne particles of respirable size)

U.S. - New Jersey - Right to Know Hazardous Substance List

QUARTZ 14808-60-7 sn 1660

U.S. - Pennsylvania - RTK (Right to Know) List

QUARTZ 14808-60-7 Present

16. Other Information**Recommended restrictions**

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.

Further information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS ratings

HMIS®	HMIS®	HMIS®	HMIS®	HMIS®	HMIS®	HMIS®
HMIS®	HMIS®					HMIS®
HMIS®	HEALTH	*	1	FLAMMABILITY	0	PHYSICAL HAZARD
HMIS®						0
HMIS®	PERSONAL PROTECTION					
HMIS®	HMIS®	HMIS®	HMIS®	HMIS®	HMIS®	HMIS®

NFPA ratings

Health: 1
Flammability: 0
Instability: 0

Disclaimer

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.

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.

Issue date

11-Jul-2008

This data sheet contains changes from the previous version in section(s):

Hazards Identification: Emergency overview

Hazards Identification: Inhalation

Other Information: Disclaimer

Other information

CETCO is a wholly owned division/subsidiary of AMCOL International Corp.