1. Identification

Product identifier: CETCO® GRANULAR GROUT

Other means of identification: None.

Recommended use: Not available.

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.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer: CETCO, an MTI Company

Address: 2870 Forbs Avenue

Hoffman Estates, IL 60192

United States

Telephone: General Information 800 527-9948

Website: http://www.cetco.com/

E-mail: safetydata@mineralstech.com

Emergency phone number: Emergency 1.866.519.4752/1 760 476 3962

Americas: 1.866.519.4752 (US, Canada, Mexico) 1 760 476 3962

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards:
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2B
- Carcinogenicity: Category 1A
- Specific target organ toxicity, repeated exposure: Category 1

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements:

Signal word: Danger

Hazard statement: Causes skin irritation. Causes eye irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information

15.24% of the mixture consists of component(s) of unknown acute oral toxicity. 16.99% of the mixture consists of component(s) of unknown acute dermal toxicity. 16.99% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 16.99% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET*</td>
<td>Proprietary*</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>QUARTZ (SIO2)</td>
<td>14808-60-7</td>
<td>5 - &lt; 10</td>
<td></td>
</tr>
<tr>
<td>CRISTOBALITE</td>
<td>14464-46-1</td>
<td>1 - &lt; 3</td>
<td></td>
</tr>
<tr>
<td>TRADE SECRET*</td>
<td>Proprietary*</td>
<td>1.25</td>
<td></td>
</tr>
</tbody>
</table>

Other components below reportable levels 80 - < 90

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments

Occupational Exposure Limits for constituents are listed in Section 8.

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed
Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Store locked up. Store in tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRISTOBALITE (CAS 14464-46-1)</td>
<td>PEL</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>QUARTZ (SIO₂) (CAS 14808-60-7)</td>
<td>PEL</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>TRADE SECRET</td>
<td>PEL</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-3 (29 CFR 1910.1000)</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRISTOBALITE (CAS 14464-46-1)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 mppcf</td>
</tr>
<tr>
<td>QUARTZ (SIO₂) (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
</tr>
<tr>
<td>TRADE SECRET</td>
<td>TWA</td>
<td>50 mppcf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRISTOBALITE (CAS 14464-46-1)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
</tr>
<tr>
<td>QUARTZ (SIO₂) (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
</tr>
<tr>
<td>TRADE SECRET</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>
US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRISTOBALITE (CAS 14464-46-1)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>QUARTZ (SIO2) (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>TRADE SECRET</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>Total</td>
</tr>
</tbody>
</table>

**Biological limit values**
No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**
Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

**Appropriate engineering controls**
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

- **Eye/face protection**
  Wear safety glasses with side shields (or goggles). Applicable for industrial settings only.

- **Skin protection**
  - **Hand protection**
    Wear appropriate chemical resistant gloves. Applicable for industrial settings only.
  - **Other**
    Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Applicable for industrial settings only.

- **Respiratory protection**
  Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit. Applicable for industrial settings only.

- **Thermal hazards**
  Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**
Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

**Appearance**

- **Physical state**
  Solid.
- **Form**
  Solid.
- **Color**
  Not available.
- **Odor**
  Not available.
- **Odor threshold**
  Not available.
- **pH**
  7 - 9
  7 - 9
- **Melting point/freezing point**
  Not available.
- **Initial boiling point and boiling range**
  Not available.
- **Flash point**
  Non-flammable
- **Evaporation rate**
  Not available.
- **Flammability (solid, gas)**
  Not available.

**Upper/lower flammability or explosive limits**

- **Flammability limit - lower (%)**
  Non-explosive
- **Flammability limit - upper (%)**
  Non-explosive
- **Explosive limit - lower (%)**
  Not available.
- **Explosive limit - upper (%)**
  Not available.
- **Vapor pressure**
  0.00001 hPa estimated
- **Vapor density**
  Not available.
- **Relative density**
  Not available.
Solubility(ies)

Solubility (water)  Negligible

Partition coefficient  Not available.

(n-octanol/water)

Auto-ignition temperature  Not available.

Decomposition temperature  Not available.

Viscosity  Not available.

Other information

Density  2.15 g/cm³ estimated

Explosive properties  Not explosive.

Oxidizing properties  Not oxidizing.

Percent volatile  0 % estimated

Specific gravity  2.15 estimated

VOC  CARB

10. Stability and reactivity

Reactivity  The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability  Material is stable under normal conditions.

Possibility of hazardous reactions  No dangerous reaction known under conditions of normal use.

Conditions to avoid  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.

Incompatible materials  Powerful oxidizers. Chlorine.

Hazardous decomposition products  No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation  Prolonged inhalation may be harmful.

Skin contact  Causes skin irritation.

Eye contact  Causes eye irritation.

Ingestion  Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics  Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity  Not known.

Product  Species  Test Results

CETCO® GRANULAR GROUT

Acute

Inhalation

LC50  Rat  200 mg/l/4h

Oral

LD50  Rat  >= 5000 mg/kg

Components  Species  Test Results

CRIStOBALITE (CAS 14464-46-1)

Acute

Oral

LD50  Rat  > 22500 mg/kg

TRADE SECRET

Acute

Dermal

LD50  Rat  2630 mg/kg
**Components** | **Species** | **Test Results**
--- | --- | ---
Oral | LD50 | Rat 1000 mg/kg
Skin corrosion/irritation |  | Causes skin irritation.
Serious eye damage/eye irritation |  | Causes eye irritation.
Respiratory or skin sensitization |  | Not a respiratory sensitizer.
Respiratory sensitization |  | This product is not expected to cause skin sensitization.
Skin sensitization |  | No data available.
Germ cell mutagenicity |  | No data available.
Carcinogenicity |  | 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. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

**IARC Monographs. Overall Evaluation of Carcinogenicity**
- CRISTOBALITE (CAS 14464-46-1) 1 Carcinogenic to humans.
- QUARTZ (SIO2) (CAS 14808-60-7) 1 Carcinogenic to humans.

- CRISTOBALITE (CAS 14464-46-1) Cancer
- QUARTZ (SIO2) (CAS 14808-60-7) Cancer

**US. National Toxicology Program (NTP) Report on Carcinogens**
- CRISTOBALITE (CAS 14464-46-1) Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.
- QUARTZ (SIO2) (CAS 14808-60-7) Known To Be Human Carcinogen.

Reproductive toxicity |  | This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure |  | Not classified.
Specific target organ toxicity - repeated exposure |  | Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard |  | Not an aspiration hazard.
Chronic effects |  | Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**
Ecotoxicity |  | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Components** | **Species** | **Test Results**
--- | --- | ---
Aquatic | EC50 | Daphnia 52 mg/L, 48 Hours
Fish | LC50 | Fathead minnow (Pimephales promelas) 3930 - 5360 mg/l, 96 hours
Fish |  | 10650 mg/L, 96 Hours
Persistence and degradability |  | No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential |  | No data available.
Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Hazardous waste code

Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

CRISTOBALITE (CAS 14464-46-1) Cancer

QUARTZ (SIO2) (CAS 14808-60-7) Cancer

CRISTOBALITE (CAS 14464-46-1) lung effects

QUARTZ (SIO2) (CAS 14808-60-7) lung effects

CRISTOBALITE (CAS 14464-46-1) immune system effects

QUARTZ (SIO2) (CAS 14808-60-7) immune system effects

CRISTOBALITE (CAS 14464-46-1) kidney effects

QUARTZ (SIO2) (CAS 14808-60-7) kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No (Exempt)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.
Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

**WARNING:** This product can expose you to QUARTZ (SIO2), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

QUARTZ (SIO2) (CAS 14808-60-7) Listed: October 1, 1988

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

CRISTOBALITE (CAS 14464-46-1)
QUARTZ (SIO2) (CAS 14808-60-7)

**International Inventories**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 31-October-2014
**Revision date** 23-July-2018
**Version #** 19

**HMIS® ratings**
Health: 3*
Flammability: 0
Physical hazard: 0

**NFPA ratings**
Health: 2
Flammability: 0
Instability: 0

**Disclaimer**
CETCO, an MTI Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information**
This document has undergone significant changes and should be reviewed in its entirety.