

SAFETY DATA SHEET

1. Identification

Product identifier REACTIVE CORE MAT® GAC & ORGANOCLAY
Other means of identification None.
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name 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/LT/>
E-mail safetydata@mineralstech.com
Emergency phone number 1.866.519.4752 (US, CA, 1 760 476 3962
 MX)
Supplier Not available.

2. Hazard identification

Physical hazards Not classified.
Health hazards Carcinogenicity Category 1A
 Specific target organ toxicity, repeated exposure Category 1
Environmental hazards Not classified.

Label elements



Signal word Danger
Hazard statement May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Observe good industrial hygiene practices.

Response If medical advice is needed, have product container or label at hand. IF exposed or concerned: Get medical advice/attention. Wash hands after handling.

Storage Store locked up. Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements. Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards None known.

Supplemental information 85% of the mixture consists of component(s) of unknown acute oral toxicity. 85% of the mixture consists of component(s) of unknown acute dermal toxicity. 85% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 85% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Constituents

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|--------------------------|------------|--------|
| QUARTZ (SIO2) | | 14808-60-7 | <= 5 |
| CRISTOBALITE | | 14464-46-1 | <= 1.7 |

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Community workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. *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. Occupational Exposure Limits for impurities are listed in Section 8. The full text for all R- and H-phrases is displayed in section 16. This product contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 5%.

4. First-aid measures

| | |
|---|--|
| 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. |
| Skin contact | Get medical attention if irritation develops or persists. No special measures required. |
| Eye contact | Flush eyes immediately with large amounts of water. Get medical attention if irritation develops or persists. |
| Ingestion | If ingestion of a large amount does occur, seek medical attention. No special measures required. |
| Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. 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 | Dry chemical, CO2, water spray or regular foam. Use any media suitable for the surrounding fires. |
| 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 | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| 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 | Not a fire hazard. 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. Wear a dust mask if dust is generated above exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Avoid the generation of dusts during clean-up. This product is miscible in water. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS. None necessary. Reduce airborne dust and prevent scattering by moistening with water. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

Precautions for safe handling

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. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. No special restrictions on storage with other products. Store in original tightly closed container. No special storage conditions required. Guard against dust accumulation of this material. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Constituents | Type | Value | Form |
|---|------|-------------------------|----------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.025 mg/m ³ | Respirable fraction. |
| QUARTZ (SiO ₂) (CAS 14808-60-7) | TWA | 0.025 mg/m ³ | Respirable fraction. |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Constituents | Type | Value | Form |
|---|------|-------------------------|-----------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.025 mg/m ³ | Respirable. |
| | | 0.025 mg/m ³ | Respirable particles. |
| QUARTZ (SiO ₂) (CAS 14808-60-7) | TWA | 0.025 mg/m ³ | Respirable particles. |
| Impurities | Type | Value | Form |
| TRADE SECRET | TWA | 3 mg/m ³ | Respirable particles. |
| | | 10 mg/m ³ | Total particulate. |

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

| Constituents | Type | Value | Form |
|---|------|-------------------------|----------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.025 mg/m ³ | Respirable fraction. |
| QUARTZ (SiO ₂) (CAS 14808-60-7) | TWA | 0.025 mg/m ³ | Respirable fraction. |
| Impurities | Type | Value | Form |
| TRADE SECRET | TWA | 3 mg/m ³ | Respirable fraction. |
| | | 10 mg/m ³ | Total dust. |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Constituents | Type | Value | Form |
|---|------|-------------------------|----------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.025 mg/m ³ | Respirable fraction. |
| QUARTZ (SiO ₂) (CAS 14808-60-7) | TWA | 0.025 mg/m ³ | Respirable fraction. |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Constituents | Type | Value | Form |
|---|------|------------------------|----------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.05 mg/m ³ | Respirable fraction. |
| QUARTZ (SiO ₂) (CAS 14808-60-7) | TWA | 0.1 mg/m ³ | Respirable fraction. |
| Impurities | Type | Value | Form |
| TRADE SECRET | TWA | 3 mg/m ³ | Respirable fraction. |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Impurities | Type | Value | Form |
|------------|------|----------|---------------------|
| | | 10 mg/m3 | Inhalable fraction. |

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

| Constituents | Type | Value | Form |
|--------------|------|-------|------|
|--------------|------|-------|------|

| | | | |
|-------------------------------|-----|------------|------------------|
| CRISTOBALITE (CAS 14464-46-1) | TWA | 0.05 mg/m3 | Respirable dust. |
|-------------------------------|-----|------------|------------------|

| | | | |
|---|-----|-----------|------------------|
| QUARTZ (SIO ₂) (CAS 14808-60-7) | TWA | 0.1 mg/m3 | Respirable dust. |
|---|-----|-----------|------------------|

| Impurities | Type | Value | Form |
|------------|------|-------|------|
|------------|------|-------|------|

| | | | |
|--------------|-----|----------|-------------|
| TRADE SECRET | TWA | 10 mg/m3 | Total dust. |
|--------------|-----|----------|-------------|

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

| Constituents | Type | Value | Form |
|--------------|------|-------|------|
|--------------|------|-------|------|

| | | | |
|-------------------------------|-----------|----------|---------------------|
| CRISTOBALITE (CAS 14464-46-1) | 15 minute | 10 mg/m3 | Inhalable fraction. |
|-------------------------------|-----------|----------|---------------------|

| | | | |
|--|--------|------------|----------------------|
| | 8 hour | 0.05 mg/m3 | Respirable fraction. |
|--|--------|------------|----------------------|

| | | | |
|---|--------|------------|----------------------|
| QUARTZ (SIO ₂) (CAS 14808-60-7) | 8 hour | 0.05 mg/m3 | Respirable fraction. |
|---|--------|------------|----------------------|

| Impurities | Type | Value | Form |
|------------|------|-------|------|
|------------|------|-------|------|

| | | | |
|--------------|-----------|---------|----------------------|
| TRADE SECRET | 15 minute | 6 mg/m3 | Respirable fraction. |
|--------------|-----------|---------|----------------------|

| | | | |
|--|--|----------|---------------------|
| | | 20 mg/m3 | Inhalable fraction. |
|--|--|----------|---------------------|

| | | | |
|--|--------|---------|----------------------|
| | 8 hour | 3 mg/m3 | Respirable fraction. |
|--|--------|---------|----------------------|

| | | | |
|--|--|----------|---------------------|
| | | 10 mg/m3 | Inhalable fraction. |
|--|--|----------|---------------------|

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

If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn. 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. 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.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear dust goggles.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Use of an impervious apron is recommended. No special protective equipment required.

Respiratory protection

Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

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. Eye wash fountain is recommended. Use good industrial hygiene practices in handling this material.

9. Physical and chemical properties**Appearance**

The product consists of bentonite granules between geotextile layers

Physical state

Solid.

Form

Solid. Mat or Fabric

Color

Various.

Odor

None.

Odor threshold

Not available.

| | |
|---|----------------|
| pH | Not available. |
| 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 | Not available. |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Negligible |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Percent volatile | 0 % estimated |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Stable at normal conditions. |
| Possibility of hazardous reactions | Will not occur. |
| Conditions to avoid | None known. Contact with incompatible materials. |
| Incompatible materials | None known. |
| Hazardous decomposition products | None known. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.

Toxicological data

| Constituents | Species | Test Results |
|--|---|--|
| CRISTOBALITE (CAS 14464-46-1) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | > 22500 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/eye irritation | Mild irritant to eyes (according to the modified Kay & Calandra criteria) | |
| Respiratory or skin sensitization | | |
| Canada - Alberta OELs: Irritant | | |
| CRISTOBALITE (CAS 14464-46-1) | | Irritant |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | According to the classification criteria of the European Union, the product is not considered as being a skin irritant. | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | May cause cancer. | |
| ACGIH Carcinogens | | |
| CRISTOBALITE (CAS 14464-46-1) | | A2 Suspected human carcinogen. |
| QUARTZ (SIO ₂) (CAS 14808-60-7) | | A2 Suspected human carcinogen. |
| Canada - Alberta OELs: Carcinogen category | | |
| CRISTOBALITE (CAS 14464-46-1) | | Suspected human carcinogen. |
| QUARTZ (SIO ₂) (CAS 14808-60-7) | | Suspected human carcinogen. |
| Canada - Manitoba OELs: carcinogenicity | | |
| CRISTOBALITE (CAS 14464-46-1) | | Suspected human carcinogen. |
| QUARTZ (SIO ₂) (CAS 14808-60-7) | | Suspected human carcinogen. |
| Canada - Quebec OELs: Carcinogen category | | |
| CRISTOBALITE (CAS 14464-46-1) | | Detected carcinogenic effect in animals. |
| QUARTZ (SIO ₂) (CAS 14808-60-7) | | Suspected carcinogenic effect in humans. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| CRISTOBALITE (CAS 14464-46-1) | | 1 Carcinogenic to humans. |
| QUARTZ (SIO ₂) (CAS 14808-60-7) | | 1 Carcinogenic to humans. |
| 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 (SIO ₂) (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

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. Causes damage to organs through prolonged or repeated exposure. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

12. Ecological information

Ecotoxicity

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

Persistence and degradability

No data is available on the degradability of this product.

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. Material should be recycled if possible.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

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

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

TDG

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

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

| 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 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 |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | No |
| 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)

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

| | |
|----------------------------|---|
| Issue date | 08-March-2019 |
| Revision date | 08-March-2019 |
| Version # | 06 |
| Further information | This safety datasheet only contains information relating to safety and does not replace any product information or product specification. |
| References | ACGIH EPA: AQUIRE database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents |

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. 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

Product and Company Identification: Alternate Trade Names