

# SAFETY DATA SHEET

# 1. Identification

Product identifier	RM-10® 2019		
Other means of identification	None.		
Recommended use	water supply; sewerage, waste management and remediation activities: remediation activities and other waste management services		
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			
Company name	CETCO Energy Services Company, an MTI Company		
Address	2870 Fords Avenue		
	Hoffman Estates		
	Covington, IL 60192		
	United States		
Telephone	General Information 985 871-4700		
Website	http://www.cetcoenergyservices.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	Carcinogenicity	Category 1A
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



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Signal word	Danger
Hazard statement	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 exposed or concerned: Get medical advice/attention.
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	13.52% of the mixture consists of component(s) of unknown acute dermal toxicity. 13.52% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 13.52% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

# 3. Composition/information on ingredients

## Mixtures

Mixtures			
Chemical name	Common name and synonyms	CAS number	%
QUARTZ (SIO2)		14808-60-7	5 - < 10
CRISTOBALITE		14464-46-1	1 - < 3
Other components below report	table levels		90 - 100
*Designates that a specific chemic	al identity and/or percentage of composition ha	as been withheld as a trade se	cret.
Composition comments	Occupational Exposure Limits for impurities are listed in Section 8. 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			
Inhalation	If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop. If not breathing, give artificial respiration or give oxygen by trained personnel.		
Skin contact	Get medical attention if irritation develops or	persists. No special measures	required.
Eye contact	Immediately flush eyes with plenty of water for irritation develops or persists.	or at least 20 minutes. Get me	dical attention if
Ingestion	Have victim rinse mouth thoroughly with wate medical attention.	r. If ingestion of a large amou	nt does occur, seek
Most important symptoms/effects, acute and delayed	Prolonged exposure may cause chronic effec	ts.	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and tre Symptoms may be delayed.	at symptomatically. Keep victi	m under observation.
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 for	am.	
Unsuitable extinguishing media	None known.		
Specific hazards arising from the chemical	During fire, gases hazardous to health may b	e formed.	
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full p	rotective clothing must be wor	n in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers		
Specific methods	Use standard firefighting procedures and con	sider the hazards of other inv	olved materials.
General fire hazards	No unusual fire or explosion hazards noted.		
6. Accidental release meas	sures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep per appropriate protective equipment and clothing authorities should be advised if significant sp see section 8 of the SDS.	during clean-up. Ensure ade	quate ventilation. Loca
Methods and materials for containment and cleaning up	Stop leak if you can do so without risk. Avoid gather material and place in appropriate cont area with water. Put material in suitable, cove section 13 of the SDS. Large spills may be ne lime.	ainer for disposal. Following p ered, labeled containers. For v	roduct recovery, flush vaste disposal, see
Environmental pressutions	De not let product opter draine. De net conter	ningto water Avaid discharge	into ducino suctou

**Environmental precautions** Do not let product enter drains. Do not contaminate water. 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. Do not breathe dust. Avoid prolonged exposure. 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. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities

including any incompatibilities container. No special storage conditions required. Keep out of the reach of children. S from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls/personal protection

#### **Occupational exposure limits**

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.

Components	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	PEL	0.05 mg/m3	Respirable dust.
QUARTZ (SIO2) (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.
US. OSHA Table Z-3 (29 CFF	R 1910.1000)		
Components	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
QUARTZ (SIO2) (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.
Impurities	Туре	Value	Form
INERT OR NUISANCE DUSTS	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
US. ACGIH Threshold Limit	Values		
Components	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
QUARTZ (SIO2) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide to	Chemical Hazards		
Components	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable dust.
QUARTZ (SIO2) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
ogical limit values	No biological exposure limits noted for the	e ingredient(s).	
osure guidelines	Occupational exposure to nuisance dust	(total and respirable) and re	spirable crystalline silic

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

Appropriate engineering If engineering measures are not sufficient to maintain concentrations of dust particulates below the controls OEL, suitable respiratory protection must be worn. Good general ventilation 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 Applicable for industrial settings only. Wear dust goggles. Eye wash fountain is recommended. Eye/face protection Skin protection Applicable for industrial settings only. Wear appropriate chemical resistant gloves. Impervious Hand protection butyl rubber gloves. Other Applicable for industrial settings only. Use of an impervious apron is recommended. Use of protective coveralls and long sleeves is recommended. Applicable for industrial settings only. Use a particulate filter respirator for particulate **Respiratory protection** concentrations exceeding the Occupational Exposure Limit. Thermal hazards Wear appropriate thermal protective clothing, when necessary. Observe any medical surveillance requirements. Always observe good personal hygiene **General hygiene** measures, such as washing after handling the material and before eating, drinking, and/or considerations smoking. Routinely wash work clothing and protective equipment to remove contaminants.

# 9. Physical and chemical properties

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Appearance	
Physical state	Solid.
Form	Powder.
Color	Tan.
Odor	None.
Odor threshold	Not available.
рН	7 - 9
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
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)	100 %
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	
VOC	CARB	

# 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	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Powerful oxidizers. Chlorine. None known.
Hazardous decomposition products	None known.

# 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.	
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	Eye irritation Not known.		
Components	Species	Test Results	
CRISTOBALITE (CAS 14464-46-1	)		
Acute			
Oral			
LD50	Rat	> 22500 mg/kg	
Skin corrosion/irritation	Prolonged skin contact may cause temporary i	rritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.		
Respiratory or skin sensitization	1		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.		
Skin sensitization	This product is not expected to cause skin sensitization.		
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	inhaled from occupational sources can cause I overall evaluation, IARC noted that "carcinoge circumstances studied. Carcinogenicity may be crystalline silica or on external factors affecting polymorphs." (IARC Monographs on the evalu humans, Silica, silicates dust and organic fibre 2003, SCOEL (the EU Scientific Committee on main effect in humans of the inhalation of resp sufficient information to conclude that the relat silicosis (and, apparently, not in employees wit in the ceramic industry). Therefore, preventing risk" (SCOEL SUM Doc 94-final, June 2003) protection against silicosis can be consistently occupational exposure limits. May cause cance	997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica ed from occupational sources can cause lung cancer in humans. However in making the all evaluation, IARC noted that "carcinogenicity was not detected in all industrial mstances studied. Carcinogenicity may be dependent on inherent characteristics of the alline silica or on external factors affecting its biological activity or distribution of its norphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to ans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 8, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is cient information to conclude that the relative risk of lung cancer is increased in persons with usis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and e ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer ." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker ection against silicosis can be consistently assured by respecting the existing regulatory pational exposure limits. May cause cancer. Occupational exposure to respirable dust and irable crystalline silica should be monitored and controlled.	

IARC Monographs. Overall Evaluation of Carcinogenicity			
CRISTOBALITE (CAS 14		1 Carcinogenic to humans.	
QUARTZ (SIO2) (CAS 14		1 Carcinogenic to humans.	
	d Substances (29 CFR 1910.10	-	
CRISTOBALITE (CAS 14464-46-1) QUARTZ (SIO2) (CAS 14808-60-7)		Cancer Cancer	
	gram (NTP) Report on Carcin		
CRISTOBALITE (CAS 14	• • • •	Known To Be Human Carcinogen.	
	000 00 7)	Reasonably Anticipated to be a Human Carcinogen.	
QUARTZ (SIO2) (CAS 14 Reproductive toxicity		Known To Be Human Carcinogen. o cause reproductive or developmental effects.	
•	Not classified.	cause reproductive of developmental enects.	
Specific target organ toxicity - single exposure			
Specific target organ toxicity - repeated exposure	Causes damage to organs thr	ough 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. Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.		
12. Ecological information	l		
Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.		
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 consideration	าร		
Disposal instructions		e in sealed containers at licensed waste disposal site. Do not allow ers/water supplies. Dispose of contents/container in accordance with ional regulations.	
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The waste code should be ass disposal company.	signed in discussion between the user, the producer and the waste	
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.

### ΙΑΤΑ

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

# 15. Regulatory information

**US** federal regulations

All components are on the U.S. EPA TSCA Inventory List. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.

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

### **Toxic Substances Control Act (TSCA)**

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 1910.1001-1053)

QI CF QI CF QI CF	RISTOBALITE (CAS 14464-46-1) JARTZ (SIO2) (CAS 14808-60-7) RISTOBALITE (CAS 14464-46-1) JARTZ (SIO2) (CAS 14808-60-7) RISTOBALITE (CAS 14464-46-1) JARTZ (SIO2) (CAS 14808-60-7) RISTOBALITE (CAS 14464-46-1)	Cancer Cancer lung effects lung effects immune system effects immune system effects kidney effects
	JARTZ (SIO2) (CAS 14464-46-1)	kidney effects

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No (Exempt) chemical

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 Not regulated.

(SDWA) US state regulations

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

## **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

Listed: October 1, 1988

QUARTZ (SIO2) (CAS 14808-60-7) US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

CRISTOBALITE (CAS 14464-46-1)

#### 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, including date of preparation or last revision

Issue date	25-March-2015
Revision date	18-June-2019
Version #	16
Further information	This safety datasheet only contains information relating to safety and does not replace any product information or product specification. HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 3* Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0
Disclaimer	CETCO Energy Services Company, 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. 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.

Handling and storage: Conditions for safe storage, including any incompatibilities Exposure controls/personal protection: Appropriate engineering controls Exposure controls/personal protection: Eye/face protection Exposure controls/personal protection: Hand protection Exposure controls/personal protection: Respiratory protection Exposure controls/personal protection: Other Stability and reactivity: Conditions to avoid Regulatory information: Safe Drinking Water Act (SDWA) Other information, including date of preparation or last revision: References GHS: Classification