



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 09/29/2016

Revision: 09/29/2016

1 Identification

- **Product identifier**
- **Trade name:** Ruby Sand
- **Other product identifiers:** Montmorillonite, calcined
- **CAS Number:**
70892-59-0
- **Recommended use and restriction on use**
- **Recommended use:** Sand replacement filter media for water.
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
ZEO, Inc.
2104 Augusta Street
McKinney, TX 75070
Phone: +1-972-542-0053
Fax: +1-972-542-0211
- **Emergency telephone number:** +1-972-542-0053

2 Hazard(s) identification

- **Classification of the substance or mixture**
The substance is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
70892-59-0 Montmorillonite, calcined

- **Components:**

14808-60-7	Quartz (SiO ₂)	☠ Carc. 1A, H350; STOT RE 1, H372	3-5%
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- **Additional information:**
Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for quartz note that the substance must be respirable.
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

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4 First-aid measures

Description of first aid measures**After inhalation:**

Unlikely route of exposure.
Respiration of particulates is unlikely during normal usage.
Supply fresh air; consult doctor in case of complaints.

After skin contact:

Brush off loose particles from skin.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact:

Remove contact lenses if worn.
Rinse opened eye at least 15 minutes under running water.
Seek medical treatment in case of complaints.

After swallowing: Do not induce vomiting; immediately call for medical help.**Most important symptoms and effects, both acute and delayed:** No relevant information available.**Indication of any immediate medical attention and special treatment needed:**

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

Extinguishing media**Suitable extinguishing agents:**

The product is not flammable.
Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: None.**Special hazards arising from the substance or mixture:** No relevant information available.**Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.
Avoid formation of dust.
Do not breathe dust.
If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8.

Environmental precautions: Not considered hazardous.**Methods and material for containment and cleaning up:**

Treat discarded material as a respiratory hazard.
Vacuum or sweep and collect in a suitable container. For a large spill, collect uncontaminated product for possible re-use. Avoid creating dusty conditions.

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Send for recovery or disposal in suitable receptacles.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Use personal protective equipment as required.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and receptacles:**

Storage area should be dry and well-ventilated.

Information about storage in one common storage facility: Store away from foodstuffs.**Specific end use(s):** No relevant information available.**8 Exposure controls/personal protection****Control parameters****Components with limit values that require monitoring at the workplace:****14808-60-7 Quartz (SiO₂)**

PEL (USA)	see Quartz listing
REL (USA)	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m ³ *as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m ³ *respirable fraction
LMPE (Mexico)	Long-term value: 0.025* mg/m ³ A2, *fracción respirable

Exposure controls**Engineering measures**

Use general dilution ventilation and/or local exhaust ventilation to maintain exposures below occupational exposure limits.

Personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

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- Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
- **Engineering controls:** Provide adequate ventilation.
 - **Breathing equipment:**
 NIOSH or EU approved dust respirator is highly recommended when ventilation is poor.
 Particulate mask should filter at least 99% of airborne particles.
 - **Protection of hands:**
 Gloves are advised for repeated or prolonged contact.
 Protection may be required for spills.
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - **Eye protection:** Follow relevant national guidelines concerning the use of protective eyewear.
 - **Body protection:**
 Not required under normal conditions of use.
 Protection may be required for spills.
 - **Limitation and supervision of exposure into the environment**
 No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

- | | |
|-------------------|-----------------|
| Form: | Granulate |
| Color: | Light brown |
| · Odor: | Negligible |
| · Odor threshold: | Not determined. |

- | | |
|--------------------------------|-----------------|
| · pH-value: | Not applicable. |
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | Not determined. |

- | | |
|----------------|-----------------|
| · Flash point: | Not applicable. |
|----------------|-----------------|

- | | |
|----------------------------------|-----------------|
| · Flammability (solid, gaseous): | Not determined. |
|----------------------------------|-----------------|

- | | |
|------------------------------|-----------------|
| · Auto-ignition temperature: | Not determined. |
|------------------------------|-----------------|

- | | |
|------------------------------|-----------------|
| · Decomposition temperature: | Not determined. |
|------------------------------|-----------------|

- | | |
|------------------------|---|
| · Danger of explosion: | Product does not present an explosion hazard. |
|------------------------|---|

· Explosion limits

- | | |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

- | | |
|-------------------------|----------------|
| · Oxidizing properties: | Non-oxidizing. |
|-------------------------|----------------|

- | | |
|-------------------|-----------------|
| · Vapor pressure: | Not determined. |
|-------------------|-----------------|

- | | |
|-----------------------------|--|
| · Density at 20 °C (68 °F): | 1.5 g/cm ³ (12.518 lbs/gal) |
|-----------------------------|--|

- | | |
|---------------------|-----------------|
| · Relative density: | Not determined. |
|---------------------|-----------------|

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- | | |
|--|------------------------------------|
| · Vapor density: | Not applicable. |
| · Evaporation rate: | Not applicable. |
| · Solubility in / Miscibility with Water: | Insoluble. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |
| · Other information | No relevant information available. |

10 Stability and reactivity

- **Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Prevent formation of dust.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer):		
14808-60-7	Quartz (SiO ₂)	1

· NTP (National Toxicology Program):		
14808-60-7	Quartz (SiO ₂)	K

· OSHA-Ca (Occupational Safety & Health Administration):		
Substance is not listed.		

- **Probable route(s) of exposure:**

- Ingestion.
- Eye contact.
- Skin contact.

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- **Repeated dose toxicity:**
Long-term inhalation of silica dusts may cause obstructive pulmonary disease including silicosis.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:**
Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** Generally not hazardous for water
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Other adverse effects:** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|-------------------------------------|----------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Not regulated. |

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- | | |
|--|-----------------|
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):
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Substance is not listed.

· Section 304 (emergency release notification):
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Substance is not listed.

· Section 355 (extremely hazardous substances):
--

Substance is not listed.

· Section 313 (Specific toxic chemical listings):
--

Substance is not listed.

· TSCA (Toxic Substances Control Act)
--

Substance is listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

Reference to Crystalline Silica and/or Quartz is based on unbound respirable particles and is not generally applicable to product as supplied.

14808-60-7	Quartz (SiO ₂)
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· Chemicals known to cause reproductive toxicity for females:
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Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:
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Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency):

Substance is not listed.

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· IARC (International Agency for Research on Cancer):

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

14808-60-7	Quartz (SiO ₂)	1
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· NIOSH-Ca (National Institute for Occupational Safety and Health):

14808-60-7	Quartz (SiO ₂)
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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Date of preparation / last revision 09/29/2016 / -**· Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

LDLo: Lowest Lethal Dose Observed

Carc. 1A: Carcinogenicity – Category 1A

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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