



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier : SF-325
Chemical Name : Crystalline Silica
Chemical Family : Crystalline Silica
Manufacturer : CESI Chemical (a Flotek Industries, Inc. company)
: 1004 S. Plainsman Road, Marlow, OK 73055
Emergency Phone : (405) 282-8510
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient : Crystalline Silica
CAS No. : 14808-60-7
Wt. Percent Range : 90-99%
OSHA PEL : 10 mg/m³
ACGIH TLV : 0.025 mg/m³
LD50 : No data available
LC50 : No data available

3. HAZARDS IDENTIFICATION

Human health hazards
Acute health hazards : Irritation
Chronic health hazards : Silicosis, cancer, sclerodema and tuberculosis
Route(s) of entry : Eyes and Inhalation
Safety hazards : None known
Environmental hazards : None known

4. FIRST AID MEASURES

Eye : Remove contact lenses at once. Immediately flush with copious amounts of water for at least 15 minutes while holding eyelids open. If irritation persists, seek medical attention.
Skin : Wash affected area thoroughly with soap and water for at least 15 minutes or until product is removed. Remove contaminated clothing and launder before reuse. If irritation develops, seek medical attention.
Inhalation : Remove to fresh air. If irritation is experienced, mouth and throat may be rinsed with water. Particles adhering to the nasal cavity may be rinsed / diluted with saline / plain water. If irritation or asthma-like symptoms persist, seek prompt medical attention.
Ingestion : Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point : None
Lower Explosion Limit : Not applicable
Upper Explosion limit : Not applicable
Extinguishing Media : None required
Protective equipment : NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and turnout gear.
Hazardous combustion products : Silica will dissolve in hydrofluoric acid and produce a corrosive gas-silicon tetrafluoride.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear hand, eye, protective clothing and respiratory protective equipment to eliminate contact.
- General precautions : Eliminate ignition sources. Evacuate all non-essential personnel.
- Small spills : Same as for large spills.
- Large spills : Sweep up and scoop into containers for reuse or disposal. Avoid producing dust. Avoid entry of large amounts of product into sewers, natural waters and drinking water. Follow all local, state and federal regulations regarding the disposal of this material.

7. HANDLING AND STORAGE

- Handling : Avoid contact with eyes, skin and clothing. Avoid breathing dust. Use with adequate ventilation. Do not take internally. Wear appropriate protective clothing and equipment during handling. Wash thoroughly after handling. Remove contaminated clothing and laundry before reuse.
- Storage : Store in cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Occupational exposure standards : Not established for the product.
- Hand protection : Nitrile rubber gloves.
- Eye protection : Safety goggles
- Respiratory protection : Dust mask or appropriate respiratory protection equipment.
- Engineering control measures : General (mechanical) room ventilation is expected to be satisfactory.
- Other : Emergency eye wash fountains and safety showers should be in the immediate vicinity of any potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : Powder
- Color : White to tan
- Odor : None
- Specific Gravity : 2.65
- Bulk Density : 40 lbs/ft³
- Boiling Point : Not applicable
- Freezing Point : Not applicable
- Solubility in water : Insoluble
- pH : Not applicable
- Percent Volatiles : Not applicable
- Vapor Pressure : None

10. STABILITY AND REACTIVITY

- Stability : Stable
- Conditions to avoid : Creating dust
- Hazardous polymerization : Will not occur
- Hazardous decomposition products : Silica will dissolve in hydrofluoric acid and produce a corrosive gas- silicon tetrafluoride.
- Incompatibility : Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

- Acute Effects
- Eye : May cause abrasion of the cornea.
- Skin : May cause irritation.
- Inhalation : A single exposure will not result in serious adverse health effects. Prolonged exposure to respirable crystalline quartz may cause delayed (chronic) lung injury (silicosis). Acute or rapidly developing silicosis may occur in a short period of time in heavy exposure in certain occupations such as sandblasters. Silicosis is a form of disabling pulmonary fibrosis, which can be progressive and may lead to death.
- Ingestion : Not applicable
- Chronic Effects : Silicosis, cancer, sclerodema and tuberculosis
- Carcinogenicity : Crystalline silica is listed in NTP, IARC monographs and OSHA regulated.

12. ECOLOGICAL INFORMATION

Environmental Fate : Biodegradability does not apply to inorganic substances.

13. DISPOSAL CONSIDERATIONS

Waste disposal : Recycle if possible. Otherwise dispose to licensed disposal contractor.
Product disposal : Recycle if possible. Otherwise comply with all local, state and federal regulations.
Container disposal : Comply with all local, state and federal regulations.

14. TRANSPORT INFORMATION

LAND (D.O.T.)

Shipping Name : Not Regulated
Label(s) required : None
Emergency Phone : (405) 282-8510

AIR (IATA)

Shipping Name : Not Regulated
Label(s) required : None

SEA (IMDG)

Shipping Name : Not Regulated
Label(s) required : None

15. REGULATORY INFORMATION

OSHA Classification : This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
: Not Regulated

TSCA (USA) : All components listed.
DSL (Canada) : All components listed

SARA Title III
Section 302 : Extremely Hazardous Substances (40CFR355): This product does not contain ingredients listed in Appendix A and B.

Sections 311/312
Immediate (acute) health hazard : YES
Delayed (chronic) health hazard : YES
Fire hazard : NO
Sudden Release of Pressure Hazard : NO
Reactive Hazard : NO

Section 313 Reportable Quantities : None

CERCLA : If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling (800) 424-8802.

Reportable Quantity : Not determined for the product.

16. OTHER INFORMATION

NFPA 704

Health : 2
Fire : 0
Reactivity : 0
Special : None

HMIS

Health : 2
Fire : 0
Reactivity : 0
Special : None

Disclaimer of Liability : The information contained in this MSDS was obtained from sources that we believe are reliable. However, the information is without any warranty, express or implied, regarding correctness. The methods of handling, storage, use and disposal of the product are beyond our control and may be outside the scope of our knowledge. For these reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.