

# HALLIBURTON

## SAFETY DATA SHEET

### SSA-2

Revision Date: 18-Jul-2013

Revision Number: 25

#### 1. Product and Company Identification

**Product Name**

**Product Trade Name:** SSA-2

**Other Names**

**Synonyms:** None  
**Product Code:** HM001921

**Recommended Use**

**Recommended Use**

Proppant

**Uses Advised Against** No information available

**Company Name, Address and Contact Details**

**Manufacturer/Supplier** Halliburton New Zealand  
1 Paraite Rd,  
Bell Block, New Plymouth  
New Zealand Registration No.: 824207

**E-Mail address:** fdunexchem@halliburton.com

**Emergency Telephone Number** +64-6-7559274

**New Zealand National Poisons Centre** 0800 764 766 (24 hours)

#### 2. Hazard(s) Identification

**Statement of Hazardous Nature**

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001; Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

**Classification**

6.7A Known or presumed human carcinogens  
6.9A Toxic to human target organs or systems

**Hazard and Precautionary Statements**

**Hazard Pictograms**



**Signal Word**

Danger

|                                 |  |
|---------------------------------|--|
| <b>Hazard Statements</b>        | H350i - May cause cancer by inhalation<br>H372 - Causes damage to organs through prolonged or repeated exposure if inhaled   |
| <b>Precautionary Statements</b> |  |
| <b>Prevention</b>               | P103 - Read label before use<br>P104 - Read Safety Data Sheet before use<br>P201 - Obtain special instructions before use<br>P202 - Do not handle until all safety precautions have been read and understood<br>P260 - Do not breathe dust/fume/gas/mist/vapors/spray<br>P264 - Wash face, hands and any exposed skin thoroughly after handling<br>P270 - Do not eat, drink or smoke when using this product<br>P281 - Use personal protective equipment as required |
| <b>Response</b>                 | P308 + P313 - IF exposed or concerned: Get medical advice/attention<br>P314 - Get medical attention/advice if you feel unwell  |
| <b>Storage</b>                  | P405 - Store locked up   |
| <b>Disposal</b>                 | P501 - Dispose of contents/container to an approved landfill   |

**Contains**

| Substances                 | CAS Number | Substance HSNO Classification |
|----------------------------|------------|-------------------------------|
| Crystalline silica, quartz | 14808-60-7 | 6.7A<br>6.9A                  |

**Other Hazards**

None known

**3. Composition and Information on Ingredients**

| Substances                 | CAS Number | PERCENT (w/w) |
|----------------------------|------------|---------------|
| Crystalline silica, quartz | 14808-60-7 | 60 - 100%     |

**4. First-Aid Measures****Requirements for First Aid or Medical Care**

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.    |
| <b>Eyes</b>       | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists. |
| <b>Skin</b>       | Wash with soap and water.   |
| <b>Ingestion</b>  | Under normal conditions, first aid procedures are not required.   |

**Workplace Facilities Required**

None

**Relation to Health Effect****Most Important Symptoms/Effects**

Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

**Medical Attention and Special Treatment****Notes to Physician**

Treat symptomatically

**5. Fire-Fighting Measures****Type of Hazard**

**Flammability Hazard**

Non-flammable

**Extinguishing media****Suitable Extinguishing Media**

None - does not burn.

**Extinguishing media which must not be used for safety reasons**

None known.

**HAZCHEM Code**

**Hazchem Code:** None Allocated

**Special Protective Equipment and Precautions for Fire Fighters****Special Protective Equipment for Fire-Fighters**

Not applicable.

**Special Exposure Hazards**

Not applicable.

## 6. Spillage, Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Avoid creating and breathing dust.

See Section 12 for additional information

**Environmental precautions**

None known.

**Methods and material for containment and cleaning up**

Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal.

**Reference to other sections**

See Section 12 for additional information.

## 7. Handling and Storage

**Precautions for Safe Handling****Handling Precautions**

This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet.

**Handling Practices****Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Approved Handlers**

If more than 10 kg (Class 6) is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry location. Store in a well ventilated area. Keep container closed when not in use. Store locked up. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Product has a shelf life of 36 months.

**Store Site Requirements**

No special controls required

**Packaging**

No special packaging required

## 8. Exposure Controls and Personal Protection

### Workplace Exposure Standards

#### Exposure Limits

| Substances                 | CAS Number | New Zealand WES            | ACGIH TLV-TWA                |
|----------------------------|------------|----------------------------|------------------------------|
| Crystalline silica, quartz | 14808-60-7 | TWA: 0.2 mg/m <sup>3</sup> | TWA: 0.025 mg/m <sup>3</sup> |

#### Engineering Controls

**Engineering Controls** Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.

#### Personal Protective Equipment (PPE)

**Respiratory Protection** Wear a NIOSH certified, European Standard EN 149 (FFP2/FFP3), or equivalent respirator when using this product.

#### Hand Protection

Normal work gloves.

#### Skin Protection

Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

#### Eye Protection

Wear safety glasses or goggles to protect against exposure.

#### Other Precautions

None known.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

**Physical State:** Solid

**Color:** White

**Odor:** Odorless

**Odor Threshold:** No information available

#### Property

#### Values

**Remarks/ - Method**

**pH:**

No data available

**Freezing Point/Range**

No data available

**Melting Point/Range**

No data available

**Boiling Point/Range**

No data available

**Flash Point**

No data available

**Evaporation rate**

No data available

**Vapor Pressure**

No data available

**Vapor Density**

No data available

**Specific Gravity**

2.65

**Water Solubility**

Insoluble in water

**Solubility in other solvents**

No data available

**Partition coefficient: n-octanol/water**

No data available

**Autoignition Temperature**

No data available

**Decomposition Temperature**

No data available

**Viscosity**

No data available

**Explosive Properties**

No information available

**Oxidizing Properties**

No information available

#### Other information

**VOC Content (%)**

No data available

## 10. Stability and Reactivity

### Chemical Stability

Stable

### Conditions to Avoid

None anticipated

**Incompatible Materials**

Hydrofluoric acid.

**Hazardous Decomposition Products**

Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).

**Hazardous Reactions**

**Hazardous Polymerization:** Will Not Occur

**11. Toxicological Information****Health Effect from Likely Routes of Exposure****Acute Toxicity****Inhalation**

Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A).

Breathing silica dust may cause irritation of the nose, throat, and respiratory passages. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

**Eye Contact**

May cause mechanical irritation to eye.

**Skin Contact**

None known.

**Ingestion**

None known

**Chronic Effects/Carcinogenicity**

**Silicosis:** Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

**Cancer Status:** The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

**Toxicity Data****Toxicology data for the components**

| Substances                 | CAS Number | LD50 Oral         | LD50 Dermal       | LC50 Inhalation   |
|----------------------------|------------|-------------------|-------------------|-------------------|
| Crystalline silica, quartz | 14808-60-7 | 500 mg/kg ( Rat ) | No data available | No data available |

## 12. Ecological Information

### Toxicity

#### Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

| Substances                 | CAS Number | Toxicity to Algae        | Toxicity to Fish         | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|----------------------------|------------|--------------------------|--------------------------|----------------------------|----------------------------|
| Crystalline silica, quartz | 14808-60-7 | No information available | No information available | No information available   | No information available   |

#### Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

#### Bioaccumulative potential

Does not bioaccumulate

#### Mobility in soil

No information available

#### Ecotoxicity Hazard Statements

None known

#### Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 13. Disposal Considerations

#### Waste treatment methods

##### Disposal Method

##### Contaminated Packaging

Bury in a licensed landfill according to federal, state, and local regulations. Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

## 14. Transport Information

#### IMDG/IMO

|                             |                 |
|-----------------------------|-----------------|
| UN Number:                  | Not restricted. |
| UN Proper Shipping Name:    | Not restricted  |
| Transport Hazard Class(es): | Not applicable  |

#### NZ 5433.1999

|                             |                 |
|-----------------------------|-----------------|
| UN Number:                  | Not restricted. |
| UN Proper Shipping Name:    | Not restricted  |
| Transport Hazard Class(es): | Not applicable  |

#### IATA/ICAO

|                             |                 |
|-----------------------------|-----------------|
| UN Number:                  | Not restricted. |
| UN Proper Shipping Name:    | Not restricted  |
| Transport Hazard Class(es): | Not applicable  |

#### Special Precautions for User

None

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

Not applicable

## 15. Regulatory Information

|   |   |
|---|---|
| <b>New Zealand Inventory of Chemicals</b> | All components listed on inventory or are exempt.   |
| <b>HSNO Approval Number</b>               | HSR003125   |
| <b>Group Name</b>                         | Not Applicable  |
| <b>HSNO Controls</b>                      | Refer to the NZ EPA website for more information: <a href="http://www.epa.govt.nz">http://www.epa.govt.nz</a>   |
| <b>Approved Handlers</b>                  | If more than 10 kg (Class 6) is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away. |
| <b>Poisons Schedule:</b>                  | None Allocated  |

## 16. Other Information

**The following sections have been revised since the last issue of this SDS**  
Not applicable

|                               |  |
|-------------------------------|--|
| <b>Additional Information</b> | For additional information on the use of this product, contact your local Halliburton representative.                            |
|                               | For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335. |

**Key literature references and sources for data**  
www.ChemADVISOR.com/  
NZ CCID

**Revision Date:** 18-Jul-2013  
**Revision Note**  
Not applicable

### Disclaimer Statement

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**End of Safety Data Sheet**