


## Section 1: Product & Company Information

**Product Name:** Salt Gel  
**Chemical Family:** Sepiolite  
**Product Use:** Drilling Fluid Additive

### Workplace Hazardous Materials Information Systems Data (WHMIS):

	Class ID	Class	Workplace Hazard
	D-2-A	Materials Causing Other Toxic Effects - Very Toxic	Toxic effects

**Manufacturer Name:** HiTech Fluid Systems  
**Address:** #1800, 505 3rd Street SW, Calgary, AB T2P 3E6 Canada  
**General Phone Number:** (403)547-2906  
**General Fax Number:** (403)547-3129  
**MSDS Revision Date:** June 1, 2008  
**Supercedes:** June 23, 2005  
**Prepared By:** HiTech Fluid Systems  
**Preparer's Phone:** (403)547-2906

## Section 2: Composition/Information on Ingredients

Chemical Name	Concentration	CAS#
Crystalline Silica, Quartz	<1.0%	14808-60-7

## Section 3: Hazards Identification

**Emergency Overview:** Where cristobalite or tridymite are present, use 1/2 of the PEL or TLV value for crystalline quartz.

### Routes of Entry:

**Skin Contact:** Yes  
**Skin Absorption:** No  
**Eye Contact:** Yes  
**Inhalation:** Yes  
**Ingestion:** No

**Potential Health Effects:**

<b>Skin:</b>	Prolonged exposure may cause dermatitis.
<b>Eye:</b>	Exposure may cause irritation to the eyes and eyelids.
<b>Inhalation:</b>	Acute exposure to dust levels higher than the TLV may cause irritation, causing dry cough. Chronic exposure may lead to development of silicosis or other respiratory problems. A persistent dry cough and laboured breathing on heavy exertion are symptoms.
<b>Ingestion:</b>	N/A

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**Section 4: First Aid Measures**

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<b>Eye Contact:</b>	Flush eyes with water for at least 15 minutes. If adverse symptoms develop, seek medical attention.
<b>Skin Contact:</b>	Wash with soap and water. If adverse symptoms persist, seek medical attention.
<b>Inhalation:</b>	Move patient to fresh air. If difficulty in breathing or symptoms of irritation persist, seek medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting. Call a physician immediately.
<b>Other First Aid:</b>	Where cristobalite or tridymite are present, use 1/2 of the PEL or TLV value for crystalline quartz.

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**Section 5: Fire Fighting Measures**

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<b>Conditions Of Flammability:</b>	Non-flammable
<b>Extinguishing Media:</b>	Dry chemical, CO <sub>2</sub> , foam, water
<b>Flashpoint:</b>	N/A
<b>Upper Flammable Limit:</b>	N/A
<b>Lower Flammable Limit:</b>	N/A
<b>Autoignition Temperature:</b>	N/A
<b>Protective Equipment:</b>	Firefighters must wear appropriate breathing apparatus and clothing.
<b>Sensitivity To Impact or Static Discharge:</b>	Not known
<b>Hazardous Combustion Products:</b>	None known.
<b>Fire Comment:</b>	

## Section 6: Accidental Release Measures

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- Personnel Precautions:** Use proper personal protective equipment as listed in section 8.
- Spill Cleanup Measures:** Use appropriate safety equipment. Small spills, sweep up and put into approved DOT containers for disposal or re-use. Large spills, do not allow to enter waterways, sweep or shovel into approved DOT containers for re-use or disposal.

## Section 7: Handling & Storage

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- Handling:** No special procedures required.
- Storage:** Store in a cool, dry, well ventilated place. Keep container tightly closed and away from incompatible materials.

## Section 8: Exposure Controls, Personal Protection, Exposure Guidelines

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- Engineering Controls:** Use dustless systems for handling, storage, and clean-up, so dust does not exceed PEL limits.
- Personal Protective Equipment:** Chemical-resistant clothing is recommended, including gloves, apron, and goggles.
- Respiratory Protection:** In absence of proper ventilation, recommended NIOSH-approved dust respirator.
- Exposure Limits:** OSHA PEL: Classified as a nuisance dust when less than 1% crystalline silica is present, PEL=5.00 mg/m<sup>3</sup>. If greater than 1% crystalline silica, then exposure shall not exceed an 8 hour time weighted average limit as stated in 29 CFR 1910.1000 Table Z-1-A for air contaminants, specifically; Silica, Crystalline Quartz (respirable) 0.1 mg/m<sup>3</sup>. ACGIH TLV: Classified as a nuisance dust when less than 1% crystalline silica, TLV-TWA= 10 mg/m<sup>3</sup> (Total dust), 5 mg/m<sup>3</sup> (Respirable) If greater than 1% crystalline silica, the TLV-TWA = 0.1 mg/m<sup>3</sup> (Respirable crystalline quartz)

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
Crystalline Silica, Quartz	0.05 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

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## Section 9: Physical & Chemical Properties

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<b>Physical State:</b>	Solid
<b>Odour And Appearance:</b>	Light gray colour; earthy odour when wet
<b>Odour Threshold:</b>	Not available
<b>Boiling Point:</b>	>537°C
<b>Evaporation Rate:</b>	Not available
<b>Melting Point:</b>	Not available
<b>Freezing Point:</b>	Not available
<b>Specific Gravity:</b>	1.9-2.4
<b>Solubility in Water:</b>	Insoluble in water.
<b>Vapour Density:</b>	Not available
<b>Vapour Pressure:</b>	Not available
<b>pH:</b>	Not available
<b>Flash Point:</b>	N/A
<b>Volatility (% by volume):</b>	Not available
<b>Coefficient of Water to Oil distribution:</b>	Not available

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## Section 10: Stability & Reactivity

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<b>Chemical Stability:</b>	Yes
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions Of Chemical Instability:</b>	
<b>Incompatible Substances:</b>	None known.
<b>Special Decomposition Products:</b>	None known.

## Section 11: Toxicological Information

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Chemical Name	LD <sub>50</sub> (Oral Rat)	LD <sub>50</sub> (Dermal Rabbit)	LC <sub>50</sub> (Inhalation Rat)
Crystalline Silica, Quartz	Not Available	Not Available	Not Available

**Effects Of Acute Exposure:** Not determined

**Effects Of Chronic Exposure:** Repeated or prolonged exposure to respirable crystalline quartz dust may cause delayed (chronic) lung injury (silicosis). Silicosis is a form of disabling pulmonary fibrosis, which can be progressive and may lead to death.

**General Irritancy Of Product:** Not determined

**Sensitization:** Not determined

**Carcinogenicity:** Crystalline Silica may reasonably be anticipated to be a carcinogen.

**Reproductive Toxicity:** N/A

**Teratogenicity:** N/A

**Embryotoxicity:** Not Available

**Mutagenicity:** N/A

**Synergistic Products:** N/A

## Section 12: Ecological Information

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**Ecotoxicity:** Not Available

**Environmental Fate:** Not Available

## Section 13: Disposal Considerations

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**Waste Disposal:** All waste should be disposed of according to federal, provincial and local regulations. Containers should NOT be re-used. Containers should be disposed of in accordance with government regulations.

## Section 14: Transport Information

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**TDG Classification:** Not regulated


**DOT UN Number:** Not regulated

**Shipping Notes:** No special requirements

## Section 15: Regulatory Information

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	Class ID	Class	Workplace Hazard
	D-2-A	Materials Causing Other Toxic Effects - Very Toxic	Toxic effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

## Section 16: Additional Information

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**MSDS Revision Date:** June 1, 2008

**MSDS Revision Notes:**

**MSDS Author:** HiTech Fluid Systems

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