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## Section 1: Product & Company Information

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**Product Name:** Chrome Free Desco II  
**Chemical Family:** Mixture  
**Product Use:** Drilling Fluid Deflocculant

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

	Class ID	Class	Workplace Hazard
	D-2-A	Materials Causing Other Toxic Effects - Very Toxic	Toxic effects
	D-2-B	Materials Causing Other Toxic Effects - Toxic	Skin and eye irritant

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**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

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## Section 2: Composition/Information on Ingredients

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Chemical Name	Concentration	CAS#
Crystalline Silica, Quartz	<1%	14808-60-7
Monohydrate Ferrous Sulphate	<10 %	17375-41-6
Proprietary Ingredients	90 %	Various

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## Section 3: Hazards Identification

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### Emergency Overview:

### Routes of Entry:

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

**Potential Health Effects:**

<b>Skin:</b>	May cause severe irritation, redness, and itching.
<b>Eye:</b>	May cause severe irritation to the eyes.
<b>Inhalation:</b>	May cause irritation to the mucous membranes of the nose, throat, and upper respiratory tract.
<b>Ingestion:</b>	May cause gastrointestinal tract irritation, shock, liver damage, rapid heart beat, and death.

**Section 4: First Aid Measures**

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<b>Eye Contact:</b>	Immediately flush the eyes with running water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention.
<b>Skin Contact:</b>	Immediately wash skin with soap and water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention.
<b>Inhalation:</b>	Immediately remove patient to fresh air. If breathing is difficult, administer oxygen. If breathing ceases, administer artificial respiration, followed by oxygen. Seek immediate medical attention.
<b>Ingestion:</b>	If conscious, give 2 to 4 glasses of water or milk to drink. DO NOT induce vomiting. Seek medical attention. Do not give anything by mouth to an unconscious or convulsing person.

**Other First Aid:**

**Section 5: Fire Fighting Measures**

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<b>Conditions Of Flammability:</b>	None known
<b>Extinguishing Media:</b>	Dry chemical, CO <sub>2</sub> , foam, water
<b>Flashpoint:</b>	Not Applicable
<b>Upper Flammable Limit:</b>	Not Applicable
<b>Lower Flammable Limit:</b>	Not Applicable
<b>Autoignition Temperature:</b>	Not Applicable
<b>Protective Equipment:</b>	Firefighters must wear appropriate breathing apparatus and clothing.
<b>Sensitivity To Impact or Static Discharge:</b>	Electrostatic charge may accumulate and create a hazardous condition when handling this material. Bonding and grounding may be necessary, but may not, by themselves, be sufficient. For more information, refer to OSHA Standard 29 CFR 1910.106.
<b>Hazardous Combustion Products:</b>	Carbon, sulphur, iron oxides may be released when burned.
<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:** Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact.
- 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:** Provide mechanical ventilation to prevent dust concentrations, and to reduce potential exposure.
- Personal Protective Equipment:** Chemical-resistant clothing is recommended, including gloves, apron, and goggles.
- Respiratory Protection:** Recommend NIOSH-approved dust respirator that provides adequate protection. Use the following elements for air-purifying respirators: Air-Purifying Respirator for Particulates (HEPA).
- Exposure Limits:** Not established.

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>
Monohydrate Ferrous Sulphate	1 mg/m <sup>3</sup>	Not Determined
Proprietary Ingredients		

## Section 9: Physical & Chemical Properties

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- Physical State:** Powder
- Odour And Appearance:** Reddish brown with small white specks; odourless
- Odour Threshold:** Not Applicable
- Boiling Point:** Not Applicable
- Evaporation Rate:** Not Applicable
- Melting Point:** Not Applicable
- Freezing Point:** Not Applicable

<b>Specific Gravity:</b>	1.5-1.7
<b>Solubility in Water:</b>	Appreciable
<b>Vapour Density:</b>	Not Applicable
<b>Vapour Pressure:</b>	Not Applicable
<b>pH:</b>	Not Applicable
<b>Flash Point:</b>	Not Applicable
<b>Volatility (% by volume):</b>	Not Applicable
<b>Coefficient of Water to Oil distribution:</b>	Not Applicable

## Section 10: Stability & Reactivity

<b>Chemical Stability:</b>	Yes
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions Of Chemical Instability:</b>	
<b>Incompatible Substances:</b>	Oxidizing agents and alkalies
<b>Special Decomposition Products:</b>	Sulfur and carbon oxides formed when burned.

## Section 11: Toxicological Information

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
Monohydrate Ferrous Sulphate	Not Available	Not Available	Not Available
Proprietary Ingredients			

**Effects Of Acute Exposure:** The toxicological properties of this chemical have not been tested or tested completely, and its handling may be hazardous. EXERCISE DUE CARE.

**Effects Of Chronic Exposure:** Chronic inhalation of dust containing crystalline silica may cause silicosis, a progressive pulmonary fibrosis, which may be associated with significantly impaired pulmonary function, cardiopulmonary impairment, and death. Crystalline silical has been classified as a known human carcinogen by the National Toxicology Program. Long term exposure to iron dusts may cause a benign lung condition (siderosis), in which there are lung changes identifiable by x-ray imaging, without significant impairment of lung function. Prolonged contact of the eye with iron particles may cause irritation.

<b>General Irritancy Of Product:</b>	None known
<b>Sensitization:</b>	Not Applicable
<b>Carcinogenicity:</b>	Contains cristalline silica, a known carcinogen for humans.
<b>Reproductive Toxicity:</b>	Not Applicable
<b>Teratogenicity:</b>	Not Applicable

**Embryotoxicity:** Not Available  
**Mutagenicity:** Not Applicable  
**Synergistic Products:** Not Applicable

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

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## Section 16: Additional Information

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

**MSDS Revision Notes:**

**MSDS Author:** HiTech Fluid Systems

**Disclaimer:** This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.