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## Section 1: Product & Company Information

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**Product Name:** Millzan  
**Chemical Family:** Xanthan Gum Biopolymer  
**Product Use:** Drilling Mud Additive

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

	Class ID	Class	Workplace Hazard
	None	Not a Controlled Product	

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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#
No Hazardous Ingredients		

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## Section 3: Hazards Identification

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**Emergency Overview:** Seek medical attention if symptoms develop or persist.

### Routes of Entry:

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

**Potential Health Effects:**

<b>Skin:</b>	Prolonged contact with the dry powder may cause drying of the skin.
<b>Eye:</b>	Not expected to cause prolonged or significant eye irritation. Material is dusty and may scratch the surface of the eye.
<b>Inhalation:</b>	Excessive inhalation may cause respiratory discomfort.
<b>Ingestion:</b>	Non-toxic through ingestion and dermal absorption.

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**Section 4: First Aid Measures**

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<b>Eye Contact:</b>	Flush with plenty of water. If irritation develops, seek medical attention.
<b>Skin Contact:</b>	No harmful effects expected.
<b>Inhalation:</b>	If large quantities have been inhaled, keep airways open as necessary.
<b>Ingestion:</b>	Symptomatic treatment. No harmful effects are expected.
<b>Other First Aid:</b>	Seek medical attention if symptoms develop or persist.

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**Section 5: Fire Fighting Measures**

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<b>Conditions Of Flammability:</b>	N/A
<b>Extinguishing Media:</b>	Foam, dry chemical, carbon dioxide
<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>	For fires involving this material, do not enter area without proper protective equipment, including self-contained breathing apparatus. In common with most organic powders, this product should be treated as a combustible dust in the finely divided and suspended state.
<b>Sensitivity To Impact or Static Discharge:</b>	N/A
<b>Hazardous Combustion Products:</b>	May include carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>Fire Comment:</b>	As with most organic powders, flammable dust clouds may be formed in air. Avoid creating dust and sources of ignition.

## Section 6: Accidental Release Measures

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- Personnel Precautions:** Use proper personal protective equipment as listed in section 8.
- Spill Cleanup Measures:** Sweep up spilled material and repackage. Hose spilled area thoroughly with water. Use caution as the product is extremely slippery when wet.

## Section 7: Handling & Storage

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- Handling:** Use caution to avoid creation of dust and to prevent inhalation. Avoid contact with product dust. Airborne dust concentrations above 20mg/L may create a dust explosion hazard. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin, and clothing. Discard or thoroughly clean contaminated clothing and shoes before re-use.
- Storage:** Keep container closed when not in use. Store in a cool dry area.

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

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- Engineering Controls:** Local exhaust
- Personal Protective Equipment:** Skin and eye protection not normally required. User discretion and preference.
- Respiratory Protection:** In heavy product dust exposure, an approved mask is recommended.
- Exposure Limits:** N/A

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
No Hazardous Ingredients		

## Section 9: Physical & Chemical Properties

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- Physical State:** Solid
- Odour And Appearance:** White to tan powder; slight odour
- Odour Threshold:** Low
- Boiling Point:** N/A
- Evaporation Rate:** N/A
- Melting Point:** N/A
- Freezing Point:** N/A
- Specific Gravity:** 1.4 - 1.6
- Solubility in Water:** Complete
- Vapour Density:** N/A
- Vapour Pressure:** N/A

<b>pH:</b>	7.0 @ 1.0%
<b>Flash Point:</b>	N/A
<b>Volatility (% by volume):</b>	N/A
<b>Coefficient of Water to Oil distribution:</b>	N/A

## 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>	Strong oxidants
<b>Special Decomposition Products:</b>	Thermal decomposition products may include CO and CO <sub>2</sub> .

## 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)
No Hazardous Ingredients			

<b>Effects Of Acute Exposure:</b>	N/A
<b>Effects Of Chronic Exposure:</b>	N/A
<b>General Irritancy Of Product:</b>	N/A
<b>Sensitization:</b>	N/A
<b>Carcinogenicity:</b>	N/A
<b>Reproductive Toxicity:</b>	N/A
<b>Teratogenicity:</b>	N/A
<b>Embryotoxicity:</b>	Not Available
<b>Mutagenicity:</b>	N/A
<b>Synergistic Products:</b>	N/A

## Section 12: Ecological Information

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<b>Ecotoxicity:</b>	Not Available
<b>Environmental Fate:</b>	Not Available

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## Section 13: Disposal Considerations

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**Waste Disposal:** Dispose of in accordance with all laws and regulations.

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## Section 14: Transport Information

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**TDG Classification:** N/A

**DOT UN Number:** N/A

**Shipping Notes:** N/A

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## Section 15: Regulatory Information

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

	Class ID	Class	Workplace Hazard
	None	Not a Controlled Product	

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.