

Section 1: Product & Company Information

Product Name: Zinc Carbonate
Chemical Family: Carbonate salt
Product Use: Drilling Mud Additive

Workplace Hazardous Materials Information Systems Data (WHMIS):

| | Class ID | Class | Workplace Hazard |
|---|----------|--------------------------|------------------|
|  | None | Not a Controlled Product | |

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# |
|--------------------------|---------------|------|
| No Hazardous Ingredients | | |

Section 3: Hazards Identification

Emergency Overview: Not Applicable

Routes of Entry:

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

Potential Health Effects:

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| Skin: | Prolonged exposure may cause irritation. |
| Eye: | May cause slight irritation and/or redness. |
| Inhalation: | May cause some respiratory irritation. |
| Ingestion: | May cause nausea and vomiting. Large doses are self-purging. |

Section 4: First Aid Measures

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| Eye Contact: | Flush eyes with water for at least 15 minutes. If adverse symptoms develop, seek medical attention. |
| Skin Contact: | Wash with soap and water. If irritation develops or persists, seek medical attention. Contaminated clothing should be laundered before re-use. |
| Inhalation: | Remove patient to fresh air. If breathing has stopped, administer artificial respiration, and seek medical attention. |
| Ingestion: | If conscious, give 2 to 4 glasses of water to drink. DO NOT induce vomiting. Seek medical attention. Do not give anything by mouth to an unconscious or convulsing person. |
| Other First Aid: | Not Applicable |

Section 5: Fire Fighting Measures

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| Conditions Of Flammability: | May burn with surrounding fire. |
| Extinguishing Media: | Dry chemical, CO ₂ , foam |
| Flashpoint: | Not Available |
| Upper Flammable Limit: | Not Available |
| Lower Flammable Limit: | Not Available |
| Autoignition Temperature: | Not Available |
| Protective Equipment: | |
| Sensitivity To Impact or Static Discharge: | Not Available |
| Hazardous Combustion Products: | Decomposes at melting point (300°C) to oxides of zinc and carbon. |
| Fire Comment: | |

Section 6: Accidental Release Measures

- 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

- 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

- 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:** Respiratory protection is not normally required. If use creates dust formations, then NIOSH-approved respirator with dust cartridge is recommended.
- Exposure Limits:** Not Determined

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

Section 9: Physical & Chemical Properties

- Physical State:** Solid
- Odour And Appearance:** White powder; odourless
- Odour Threshold:** Not Available
- Boiling Point:** Not Applicable
- Evaporation Rate:** Not Applicable
- Melting Point:** 300°C, decomposes
- Freezing Point:** Not Applicable
- Specific Gravity:** Approx. 3.5 g/cc
- Solubility in Water:** Very slight

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| Vapour Density: | Not Applicable |
| Vapour Pressure: | Not Applicable |
| pH: | Not Applicable |
| Flash Point: | Not Available |
| Volatility (% by volume): | Not Applicable |
| Coefficient of Water to Oil distribution: | Not Applicable |

Section 10: Stability & Reactivity

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| Chemical Stability: | Yes |
| Hazardous Polymerization: | Will not occur. |
| Conditions Of Chemical Instability: | Not Applicable |
| Incompatible Substances: | Acids |
| Special Decomposition Products: | Decomposition creates oxides of zinc, which may cause "brass chiss" or "brass founder auge"; may cause damage to mucous membranes. |

Section 11: Toxicological Information

| Chemical Name | LD ₅₀ (Oral Rat) | LD ₅₀ (Dermal Rabbit) | LC ₅₀ (Inhalation Rat) |
|--------------------------|-----------------------------|----------------------------------|-----------------------------------|
| No Hazardous Ingredients | | | |

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|--------------------------------------|---|
| Effects Of Acute Exposure: | Mild |
| Effects Of Chronic Exposure: | Mild |
| General Irritancy Of Product: | Slight |
| Sensitization: | Not a known sensitizer. |
| Carcinogenicity: | Not considered to be a carcinogen by IARC, NTP, and OSHA. |
| Reproductive Toxicity: | None known. |
| Teratogenicity: | Not a known teratogen. |
| Embryotoxicity: | Not Available |
| Mutagenicity: | Not a known mutagen. |
| Synergistic Products: | None known. |

Section 12: Ecological Information

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| Ecotoxicity: | Not Available |
| Environmental Fate: | Not Available |

Section 13: Disposal Considerations

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

TDG Classification: 9.2
DOT UN Number: NA9157
Shipping Notes: No special requirements

Section 15: Regulatory Information

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.

Section 16: Additional Information

MSDS Revision Date: June 1, 2008
MSDS Revision Notes:
MSDS Author: HiTech Fluid Systems

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