Section 1: Product & Company Information

Product Name: Soda Ash

Chemical Family: Sodium Carbonate, anhydrous

Product Use: Drilling Mud Additive

Workplace Hazardous Materials Information Systems Data (WHMIS):

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

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#
Sodium Carbonate	99.8%	497-19-8

Section 3: Hazards Identification

Emergency Overview: NOTE TO PHYSICIANS: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. If burns result from overexposure, treat in the following manner: Ingestion: Treat asphyxia from glottal edema by maintaining an adequate airway. Shock. Maintain normal blood pressure by transfusion and by the administration of 5% dextrose in saline. If symptoms are severe and perforation of the stomach or esophagus is suspected, give nothing by mouth until endoscopic examination has been done. Maintain nutrition, give carbohydrate or hyperalimentary fluid intravenously. Give prednisolone, 2 mg/kd/d in divided doses for 10 days, to reduce progression of fibrocystic and hyaline lung disease. Esophageal stricture may require dilation.

Routes of Entry:

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

Potential Health Effects:

Skin:	Prolonged exposure may cause irritation.
Eye:	May cause slight irritation and/or redness and burning.
Inhalation:	May cause some respiratory irritation.
Ingestion:	May cause nausea, vomiting, and diarrhea.

Section 4: First Aid Measures

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 patient is 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:	NOTE TO PHYSICIANS: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. If burns result from overexposure, treat in the following manner: Ingestion: Treat asphyxia from glottal edema by maintaining an adequate airway. Shock. Maintain normal blood pressure by transfusion and by the administration of 5% dextrose in saline. If symptoms are severe and perforation of the stomach or esophagus is suspected, give nothing by mouth until endoscopic examination has been done. Maintain nutrition, give carbohydrate or hyperalimentary fluid intravenously. Give prednisolone, 2 mg/kd/d in divided doses for 10 days, to reduce progression of fibrocystic and hyaline lung disease. Esophageal stricture may require dilation.

Section 5: Fire Fighting Measures

Conditions Of Flammability:	Product does not burn or support combustion.
Extinguishing Media:	Dry chemical, CO_2, foam, water
Flashpoint:	N/A
Upper Flammable Limit:	N/A
Lower Flammable Limit:	N/A
Autoignition Temperature:	N/A
Protective Equipment:	Firefighters must wear appropriate breathing apparatus and clothing.
Sensitivity To Impact or Static Discharge:	None known.
Hazardous Combustion Products:	Heating soda ash releases CO_2.
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: Nuisance particulate 10 mg/m^3

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
Sodium Carbonate	Not Available	Not Available

Section 9: Physical & Chemical Properties

Physical State: Solid

Odour And Appearance: White powder; odourless

Odour Threshold: N/A

Boiling Point: Decomposes at 400°C

Evaporation Rate: N/A

Melting Point: 851°C

Freezing Point: N/A

Specific Gravity: 2.533 @ 20°C

Solubility in Water: 17 % solution at 20C

Vapour Density: N/A

Vapour Pressure: N/A

pH: 11.3 in 1% solution

Flash Point: N/A

Volatility (% by volume): N/A

Coefficient of Water to Oil distribution: Not available

Section 10: Stability & Reactivity

Chemical Stability: Yes

Hazardous Polymerization: Will not occur.

Conditions Of Chemical Instability: N/A

Incompatible Substances: Contact with acids will release CO_2 gas. Can react violently with red hot aluminum metal, flourine gas, lithium, and 2,4,6-trintrotoluene. Simultaneous exposure of soda ash and lime dust in the presence of moisture can result in the formation of corrosive caustic soda, which may cause burns.

Special Decomposition Products: Heating soda ash releases CO_2.

Section 11: Toxicological Information

Chemical Name	LD_{50} (Oral Rat)	LD_{50} (Dermal Rabbit)	LC_{50} (Inhalation Rat)
Sodium Carbonate	3160 mg/kg	2300 mg/m^3	Not Available

Effects Of Acute Exposure: As above

Effects Of Chronic Exposure: Excessive contact may produce "soda ulcers" on hands and perforation of the nasal septum. Sensitivity reactions may occur from prolonged and repeated exposure.

General Irritancy Of Product: Moderate

Sensitization: Not available

Carcinogenicity: Not considered to be a carcinogen by IARC, NTP, and OSHA

Reproductive Toxicity: Not available

Teratogenicity: Not a known teratogen

Embryotoxicity: Not Available

Mutagenicity: Not a known mutagen

Synergistic Products: Not available

Section 12: Ecological Information

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. It is the responsibility of the end-user to determine if material meets criteria for hazardous waste at the time of disposal. Containers should NOT be re-used. Containers should be disposed of in accordance with government regulations.

Section 14: Transport Information

TDG Classification: Not regulated

DOT UN Number: N/A

Shipping Notes: No special requirements

Section 15: Regulatory Information

Workplace Hazardous Materials Information Systems Data (WHMIS):

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

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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