





Section 1: Product & Company Information

Product Name: Caustic Potash
Chemical Family: Potassium Hydroxide
Product Use: Drilling Mud Additive

Workplace Hazardous Materials Information Systems Data (WHMIS):

	Class ID	Class	Workplace Hazard
	D-1-A	Materials Causing Immediate/Serious Toxic Effects - Very Toxic	Immediate toxic effects
	D-1-B	Materials Causing Immediate/Serious Toxic Effects - Toxic	Immediate serious toxic effects
	E	Corrosive Materials	Corrosive

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#
Potassium Hydroxide	90%	1310-58-3

Section 3: Hazards Identification

Emergency Overview: None known.

Routes of Entry:

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

Potential Health Effects:

Skin:	May cause first, second, and third degree burns, depending on concentration and length of contact.
Eye:	May cause corneal deconstruction, resulting in permanent impairment of vision and blindness.
Inhalation:	Airborne concentrations of dust, mist, or spray may cause damage to the upper respiratory tract and even to the lung tissue proper, which could produce chemical pneumonia, depending on the severity of exposure.
Ingestion:	Swallowing can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat, esophagus, and stomach.

Section 4: First Aid Measures

Eye Contact:	Immediately flush contaminated eye(s) with gently flowing, lukewarm water, for at least 30 minutes, holding the eyelids apart. If available, a neutral saline solution may be used to flush the contaminated eye(s) an additional 30 minutes. If irritation persists, repeat flushing. Obtain immediate medical attention.
Skin Contact:	As quickly as possible, flush contaminated area with lukewarm, gently flowing water for at least 30 minutes. Remove contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention. Decontaminate clothing before re-use or discard.
Inhalation:	Remove patient to fresh air. If breathing has stopped, administer artificial respiration, and seek medical attention.
Ingestion:	DO NOT induce vomiting. Never give anything by mouth if patient is losing consciousness/is unconscious or convulsing. Rinse mouth thoroughly with water. If patient can swallow, have them drink 8 to 10 ozs of water to dilute material in stomach. If vomiting occurs naturally, have patient lean forward to reduce risk of aspiration. Repeat administration of water. Obtain medical attention immediately.
Other First Aid:	None known.

Section 5: Fire Fighting Measures

Conditions Of Flammability:	Non-flammable
Extinguishing Media:	Dry chemical, CO ₂ , foam, water
Flashpoint:	Non-combustible
Upper Flammable Limit:	Not Applicable
Lower Flammable Limit:	Not Applicable
Autoignition Temperature:	Not Applicable
Protective Equipment:	Firefighters must wear appropriate breathing apparatus and clothing.

Sensitivity To Impact or Static Discharge: Not Applicable

Hazardous Combustion Products: Not determined.

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: None required for normal use.

Personal Protective Equipment: Chemical-resistant clothing is recommended, including gloves, apron, and goggles.

Respiratory Protection: Recommend NIOSH-approved dust respirator.

Exposure Limits: OSHA PEL = 2mg/m³, ACGIH TLV = 2mg/m³

Chemical Name	ACGIH TLV-TWA	OSHA PEL-TWA
Potassium Hydroxide	Not Available	Not Available

Section 9: Physical & Chemical Properties

Physical State: Solid

Odour And Appearance: White flake; minimal odour

Odour Threshold: Not determined.

Boiling Point: 1320°C

Evaporation Rate: Not Applicable

Melting Point: Not Available

Freezing Point:	400°C
Specific Gravity:	2.044 @ 20°C
Solubility in Water:	completely
Vapour Density:	Not Applicable
Vapour Pressure:	60 mm Hg @ 1013°C
pH:	>12 in 1% solution
Flash Point:	Non-combustible
Volatility (% by volume):	Not Applicable
Coefficient of Water to Oil distribution:	Not Applicable

Section 10: Stability & Reactivity

Chemical Stability:	Yes
Hazardous Polymerization:	Will not occur.
Conditions Of Chemical Instability:	Not Applicable
Incompatible Substances:	Avoid direct contact with water. Avoid contact with tin, aluminum, zinc and alloys containing metals. Do not mix strong acids without dilution and agitation to prevent violent or explosive reaction. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro compounds.
Special Decomposition Products:	None known.

Section 11: Toxicological Information

Chemical Name	LD ₅₀ (Oral Rat)	LD ₅₀ (Dermal Rabbit)	LC ₅₀ (Inhalation Rat)
Potassium Hydroxide	365 mg/kg	Not Available	Not Available

Effects Of Acute Exposure:	Severe burns to contact area.
Effects Of Chronic Exposure:	None known.
General Irritancy Of Product:	Severe
Sensitization:	None known.
Carcinogenicity:	Not known.
Reproductive Toxicity:	Not Available
Teratogenicity:	Not Available
Embryotoxicity:	Not Available
Mutagenicity:	Not Available
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. Containers should NOT be re-used. Containers should be disposed of in accordance with government regulations.

Section 14: Transport Information




TDG Classification: 8 / Packaging Group II

DOT UN Number: UN1813

Shipping Notes: Secure containers (full and/or empty) with suitable hold-down devices during shipment.

Section 15: Regulatory Information

Workplace Hazardous Materials Information Systems Data (WHMIS):

	Class ID	Class	Workplace Hazard
	D-1-A	Materials Causing Immediate/Serious Toxic Effects - Very Toxic	Immediate toxic effects
	D-1-B	Materials Causing Immediate/Serious Toxic Effects - Toxic	Immediate serious toxic effects
	E	Corrosive Materials	Corrosive

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

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.