

Prairie Mud Service Ltd.

"Serving Western Canada with 24 Hour Drilling Mud Service"

MSDS (Material Safety Data Sheet)

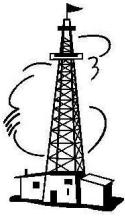
SECTION I: IDENTIFICATION OF PRODUCT	
Product Identifier:	Potash
General Description:	KCL
Supplier:	Prairie Mud Service 738 – 6th Street Estevan, SK S4A 1A4 Phone: (306) 634-3411 Fax: (306) 634-6694
Effective Date:	November 27, 2009

SECTION II: HAZARDOUS INGREDIENTS										
Chemical Name	CAS No.	Exposure Limits								% by weight
		OSHA PEL		TLV-TWA		STEL		CEIL		
		Mg/m ³	ppm	Mg/m ³	ppm	Mg/m ³	ppm	Mg/m ³	ppm	
Potassium Chloride	7447-40-7			10						95-99.8
Sodium Chloride	7647-14-5			10						0.1-4
May contain up to 0.25% base lubrication oil and/or 0.03% neutralized primary aliphatic amines										

SECTION III: HAZARD IDENTIFICATION			
Potential Acute Health Effects:	May cause irritation		
Eyes & Skin:	Mild Irritation, especially in open wounds		
Inhalation:	Exposure to high dust concentrations may cause irritation of mucous membranes.		
Ingestion:	A large body load may cause vomiting, diarrhea, cramps, tingling in hand and feet, weak pulse, and circulatory disturbances.		
Potential Chronic Health Effects:	Lung symptoms		
Carcinogenicity Lists:	IARC Monograph: No	NTP: No	OSHA: No

SECTION IV: FIRST AID MEASURES	
Eyes	Flush eyes with water, including under upper and lower lids, for at least 15 minutes. Get medical attention if pain and irritation persists.
Skin:	Wash thoroughly with water. Obtain medical advice if rash develops.
Ingestion:	Administer water if patient is conscious. Ingesting potash will usually cause purging of the stomach by vomiting. Obtain medical attention.
Inhalation:	Remove to fresh air. Obtain medical attention of discomfort persists.

SECTION V: FIRE FIGHTING MEASURES			
Flash Point:	Not Applicable	Auto-ignition Temp.	Not Applicable
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Unusual Fire and Explosion Hazards:	When subjected to extremely high temperatures, it may release small quantities of chlorine gas.		
Extinguishing Media:	As required for surrounding fire. Potash is non-flammable and does not support combustion.		



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Special Firefighting Procedures and Equip:	Wear full protective clothing and self-contained breathing apparatus.
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SECTION VI: HANDLING AND STORAGE

Ventilation:	Local exhaust to reduce dust concentrations below recommended levels.
Handling:	Avoid generating dust by excessive or unnecessary movement.
Storage:	Store in a dry location. Avoid contact with aluminum or carbon steel to minimize

SECTION VII: ACCIDENTAL RELEASE MEASURES

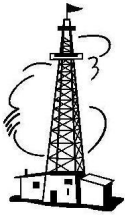
Small Spill:	Sweep up and use as fertilizer of non-contaminated
Large Spill:	Collect with appropriate equipment. If on a hard surface, sweep up residue with brooms. If on soil, remove and collect the top 5cm of soil.
Release Notes:	Non-toxic to aquatic organisms.

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:	May be necessary to minimize dust levels.
PERSONAL PROTECTION:	
Eye Protection:	Use tight fitting safety goggles in areas of high dust concentration.
Protective Clothing	Gloves, long sleeve shirts, and long pants. Launder work clothing regularly.
Respiratory Protection:	Wear NIOSH approved respiratory protective equipment when workplace conditions warrant use of respirator.
Other Protective Clothing or Equipment:	Optional

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Colour / Odor	White to red solid, fine to 4mm size, granules which may have a slight oily odor.	Boiling Point:	1500°C (sublimates)
Melting Point/Range	771-773°C	Boiling Point Range	1420-1500°C
Solubility in Water	347 g/l @20°C	Vapour Pressure (mmHg)	Not applicable
Specific Gravity	2.0 (H ₂ O)=1)	Molecular Weight:	74
Vapour Density	Not applicable	% Volatiles	<0.5
Bulk Density	1-1.3 g/ml	Evaporation Rate	Not applicable
pH	About 7	Freezing Point	Not applicable
Viscosity	Not applicable	Density	Not applicable



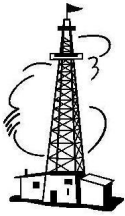
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SECTION X: STABILITY AND REACTIVITY	
Stability	Stable
Hazardous Polymerization	Will not occur
Conditions to Avoid	None
Materials to Avoid (Incompatibles)	Contact with strong acid may produce hydrogen chloride gas, contact with hot nitric acid may produce toxic nitrosyl chloride
Hazardous Decomposition Products	None

SECTION XI: TOXICOLOGICAL INFORMATION		
Significant Routes of Exposure	Skin, eyes, ingestion, inhalation	
Toxicity to Animals	Acute Oral Toxicity:	(mouse, rat) LD ₅₀ =1500-2600 mg/kg bw
	Acute Inhalation Toxicity:	No data available
	Acute Toxicity: Other Routes:	No data available
	Acute Dermal Toxicity:	No data available
	Repeated Dose Toxicity:	No data available
	Eye/Skin Irritation/Corrosion:	No data available
Special Remarks on Toxicity to Animals	Based on toxicity data for another salt compound (ie Potassium Nitrate). Not expected to be toxic by dermal exposure as defined by OSHA.	
	Developmental Toxicity/Teratogenicity	No data available
	Bacterial Genetic Toxicity In-Vitro: Gene Mutation	(Saccaromyces cerevisiae)-Mitotic recombination: NOAEL=300mm
	Non-Bacterial Genetic Toxicity In-Vitro: Chromosomal Aberration:	No data available
	Toxicity to Reproduction:	No data available
	Carcinogenicity:	No data available
Other Effects on Humans	Large doses by mouth can cause gastrointestinal irritation, purging, weakness, and circulatory disturbances. Potassium chloride used as a dietary supplement in food for human consumption is generally recognized as safe (GRAS)	
Special Remarks on Chronic Effects on Humans	Not reported to be carcinogenic, mutagenic, teratogenic, or allergenic.	
Special Remarks on Other Effects on Humans	None	



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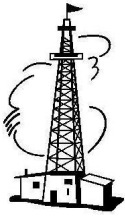
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SECTION XII: ECOLOGICAL INFORMATION		
Ecotoxicity:	Acute Toxicity to Fish:	(Lepomis macrochirus) (blue gill) -96 hours-LC ₅₀ = 2010 mg/L (ppm KCl)
	Chronic Toxicity to Fish:	No data available
	Acute Toxicity to Aquatic Invertebrates:	(Daphnia magna) -48 hours – EC ₅₀ = 337 -825mg/L; (Physa heterostropha) -96 hrs – LC ₅₀ = 940 mg/L
	Chronic Toxicity to Aquatic Invertebrates:	No data available
	Toxicity to Aquatic Plants:	(Nitzschia linearis) diatom) – 5 days-120 hrs TL _m =1337 ppm KCl; (Scendesmus subspicatus) 72hrs-EC ₅₀ =2500 mg/L. (Chlorella vulgaris) -3-4 mths-NOEC=600mg KCl/L, LOEL=700mg KCl/L
	Toxicity to Bacteria: (activated sludge)	No data available
	Toxicity to Soil Dwelling Organisms:	No data available
	Toxicity to Terrestrial Plants:	No data available
Environmental Fate:	Stability in Water:	Ions can persist, dissociates in water
	Stability in Soil:	Binds to clay particles
	Transport & Distribution:	1.51 x 10 ⁻⁸ % to air, 45.2% to water, 54.7% to soil, 0.0755% to sediment
Toxicity:	Not toxic to aquatic organisms defined by USEPA	
Degradation Products:	Biodegradation:	No data available
	Photodegradation:	No data available

SECTION XIII: DISPOSAL CONSIDERATIONS	
Product Disposal:	Uncontaminated product may be used as fertilizer. Otherwise, dispose according to Federal State or Provincial regulations in a landfill approved to receive Potash.
General Comments:	Because of its solubility, potash should not be disposed of in a location where run-off will escape.

SECTION XIV: TRANSPORTATION INFORMATION		
	US DOT	TDG - CANADA
Proper Shipping Name:	Not Regulated	Not Regulated
Hazard Class:		
Identification Number:		



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Packing Group (Technical Name):		
Labeling / Placarding:		
Notes:		

SECTION XV: DISPOSAL CONSIDERATIONS

	WHMIS Hazard Symbol and Classification:	Not Controlled
	Ingredient Disclosure List:	This product does not contain ingredients on this list
	Environmental Protection:	All intentional ingredients are listed on the DSL (Domestic Substance List)
EINECS#:	(Potassium Chloride) 231-211-1 (Sodium Chloride) 231-554-3	

SECTION XVI: OTHER INFORMATION

NFPA Hazard Ratings:	Health: 1	Fire: 0	Reactivity: 0	Special Hazards
	0 = Insignificant	1=Slight	2=Moderate	3=High 4=Extreme

The above information is supplied as a customer service and is provided in good faith. Although it has been based on data drawn from sources deemed to be reliable, Prairie Mud Service cannot guarantee its accuracy and assumes no responsibility for conditions resulting from its use.