Safety Data Sheet

Section 01 - Identification

Product Identifier	Potassium Chloride 23% Solution
Other Means of Identification	Chloride of Potash Solution
Product Use and Restrictions on Use	Drilling mud, water softening, completion fluids, workover fluids, animal feed additive, deicer, cementing, fertilizer.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Potassium Chloride	7447-40-7	~ 23	
Water	7732-18-5	~ 77	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact / Absorption	Remove contaminated clothing. For a large splash, flood body under a shower. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
Eye Contact	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
Ingestion	Do not induce vomiting. If conscious, washout mouth and give water to drink. Get immediate medical attention if symptoms persist.
Additional Information	Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Not expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	During a fire, corrosive and toxic hydrogen chloride and/or chlorine gases, dipotassium oxide and other toxic and irritating fumes and gases may be formed by thermal decomposition. Closed containers may explode in the heat of a fire.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
Environmental Precautions	Prevent material from entering sewers.
Methods and Materials for Containment and Cleaning Up	Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
Conditions for Safe Storage	Store the containers tightly closed. Store in suitable labelled containers. Protect product from freezing temperatures. Avoid if possible contact with aluminum or carbon steel to minimize corrosion.
Incompatibilities	Contact with hot nitric acid may cause toxic nitrosyl chloride. Contact with strong acids may cause hydrogen chloride gas.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Potassium Chloride solution	Not Available		

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	No specific requirement, but it is good practice to wear chemical safety goggles.
Hand Protection	No specific requirement, but it is good practice to prevent skin contact.
Skin and Body Protection	No specific requirement, but it is good practice to prevent skin contact. No special footwear is required other than what is mandated at place of work.
Respiratory Protection	Wear NIOSH approved respiratory protective equipment when workplace conditions warrant use of respirator.
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear, colourless
Odour	Odourless
Odour Threshold	Not Applicable

Property

pH	~ 7
Melting Point/Freezing Point	~ -7°C
Initial Boiling Point and Boiling Range	> 100°C
Flash Point	Not Available
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Available
Lower Flammable Limit	Not Available
Vapour Pressure (mm Hg, 20^{o}C)	Not Available
Vapour Density (Air=1)	Not Available
Relative Density	Not Available
Solubility(ies)	Complete in water
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Available
Decomposition Temperature	Not Available

Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	~ 1.15 @ 20°C
% Volatiles by Volume	Not Available
Formula	Not Available
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Not Available
Incompatible Materials	Peroxyacetic acid, acetic acid, potassium permanganate, sulfuric acid, bromine trifluoride.
Hazardous Decomposition Products	Corrosive and toxic hydrogen chloride and/or chlorine gases and dipotassium oxide may be formed by thermal decomposition or in a fire

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}
Potassium Chloride	1500-2600mg/kg(Rat)	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Potassium Chloride	None of the substances in this product are listed as carcinogens by IARC, NTP or ACGIH.

Skin Corrosion/Irritation	Minor skin irritant.
Ingestion	A large body load may cause vomiting, diarrhea, cramps, tingling in hands and feet, weak pulse, and circulatory disturbances.
Inhalation	Exposure to high dust concentrations of Potassium Chloride may cause irritation of the mucous membranes.
Serious Eye Damage/Irritation	Minor eye irritation.
Respiratory or Skin Sensitization	This product is not expected to be a sensitizer.
Germ Cell Mutagenicity	The available information does not suggest that potassium chloride is mutagenic.
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Potassium Choride	EC50(Diatom, 96hr):1337mg/L	LC50(Gambusia affinis, 96hr): 435mg/L	EC50(Daphnia magna, 96hr): 29mg/L

Biodegradability Not Available

Bioaccumulation No potential for bioaccumulation.

Mobility Not Available

Other Adverse Effects Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Contaminated Packaging Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number Not Regulated

UN Proper Shipping Name Not Regulated

Transport Hazard Class(es) Not Regulated

Packaging Group Not Regulated

Environmental Hazards Not listed as a marine pollutant under Canadian TDG Regulations.

Special Precautions Not Available

Transport in Bulk Not Available

TDG

Other Secure containers (full and/or empty) with suitable hold down devises during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date January 30, 2017

Revision Date August 23, 2018

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

1) CHEMINFO
2) eChemPortal
3) TOXNET
4) Transportation of Dangerous Goods Canada
5) HSDB
6) ECHA

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