



Safety Data Sheet

Section 01 - Identification

Product Identifier	Potassium Chloride
Other Means of Identification	Muriate of Potash, KCl, potash soluble 62%, granular lawn&garden, chloride of potash.
Product Use and Restrictions on Use	Fertilizer, fertilizer production, drilling muds for the oil production industry, flame retardants and fire prevention [component of dry chemical fire extinguishers], snow and ice melt.
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	95-99.8%	
Sodium chloride	7647-14-5	0.1-4%	

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	No health effects expected. Flush with lukewarm, gently flowing water. If irritation persists, seek medical attention.
Eye Contact	If irritation occurs, flush the contaminated eye(s) with lukewarm, gently flowing water for 30 minutes. If irritation persists, seek medical attention.
Ingestion	If irritation or discomfort occurs, seek medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Does not burn or support combustion. Use extinguishing media suitable for surrounding fire.
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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.
Environmental Precautions	Prevent material from entering sewers.
Methods and Materials for Containment and Cleaning Up	Use vacuum equipped with HEPA filter(s). Alternatively, dampen spilled material with water. Shovel into clean, dry, labelled containers. Cover containers. Flush area with water.

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 in suitable, labelled containers. Store in a dry location. Protect from damage. Keep containers closed when not in use. Store away from incompatible materials.
Incompatibilities	Peroxyacetic acid, acetic acid, potassium permanganate, sulfuric acid, and bromine trifluoride.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Muriate of Potash	Not Established		

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 Solid fine to 4mm size granules

Colour White to red

Odour May have a slight oily odor.

Odour Threshold Not Available

Property

pH ~7

Melting Point/Freezing Point 771°C

Initial Boiling Point and Boiling Range 1407-1437°C

Flash Point Not Applicable

Evaporation Rate Not Applicable

Flammability Non-Flammable

Upper Flammable Limit Not Applicable

Lower Flammable Limit Not Applicable

Vapour Pressure (mm Hg, 20°C) Very low

Vapour Density (Air=1) Not Applicable

Relative Density Not Available

Solubility(ies) Very soluble in water.
Moderately soluble in glycerol; slightly soluble in ethanol; insoluble in diethyl ether and acetone.

Partition Coefficient: n-octanol/water Log P_{ow} = -0.46

Auto-ignition Temperature Not Applicable

Decomposition Temperature Not Available

Viscosity Not Applicable

Explosive Properties Closed containers may explode in the heat of a fire.

Specific Gravity (Water=1) 1.98-1.99

% Volatiles by Volume Not Available

Formula	KCl
Molecular Weight	74.55

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Normally stable.
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	Generation of dust.
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	383mg/kg (mouse)	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Potassium chloride	Not considered a carcinogen by IARC, NTP or OSHA.

Skin Corrosion/Irritation	Mild irritation, especially in open wounds.
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 may cause irritation of the mucous membranes.
Serious Eye Damage/Irritation	Mild irritation.
Respiratory or Skin Sensitization	Potassium chloride is not a skin sensitizer.
Germ Cell Mutagenicity	The available information does not suggest that potassium chloride is mutagenic.
Reproductive Toxicity	Potassium chloride is not known to cause reproductive toxicity.
STOT-Single Exposure	May cause respiratory irritation.
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 chloride	EC ₅₀ (Diatom, 96hr):1337mg/L	LC ₅₀ (Gambusia affinis, 96hr): 435mg/L	EC ₅₀ (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, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

TDG

Other Secure containers (full and/or empty) with suitable hold down devices 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	August 28, 2015
Revision Date	April 10, 2019

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
- 7) PAN

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