



# Safety Data Sheet

## Section 01 - Identification

<b>Product Identifier</b>	Filtra KAL
<b>Other Means of Identification</b>	None
<b>Product Use and Restrictions on Use</b>	Zeolite filter media impregnated with potassium permanganate for air filtration.
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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## 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

<b>Chemical Name</b>	<b>CAS Number</b>	<b>Weight %</b>	<b>Unique Identifiers</b>
Zeolite	1318-02-1	79.5-81.5%	
Water	7732-18-5	12.5-14.5%	
Potassium Permanganate	7722-64-7	6-8%	

## Section 04 - First Aid Measures

<b>Inhalation</b>	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.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	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.
<b>Ingestion</b>	Drink several glasses of water or milk. Vomiting should not be induced. Seek immediate medical attention.
<b>Additional Information</b>	Not Available

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Use appropriate extinguishing media for surrounding fire.
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	Thermal decomposition may yield oxygen and toxic fumes of manganese oxides due to presence of potassium permanganate.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.
<b>Environmental Precautions</b>	Prevent material from entering sewers or confined spaces.
<b>Methods and Materials for Containment and Cleaning Up</b>	Stop or reduce leak if safe to do so. Sweep up granules and dispose of in a waste disposal container. Flush with water to remove any residue.

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	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.
<b>Conditions for Safe Storage</b>	Protect containers against physical damage. Store in a cool, dry area in closed containers.
<b>Incompatibilities</b>	Potassium permanganate is incompatible with organic materials, combustible materials, reducing agents, strong acids, peroxides, alcohols, ammonium nitrate, ammonium perchlorate, dichloromethylsilane, antimony, arsenic, phosphorous, sulphur, titanium, carbon, iron salts, mercury salts, hypophosphites, hyposulphites, sulphites, oxalates, halides, hydrides, arsenites, and heat.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Potassium Permanganate	ACGIH	TLV-TWA	0.02mg/m <sup>3</sup> (respirable fraction)
		TLV-TWA	0.1mg/m <sup>3</sup> (inhalable fraction)
	OSHA	PEL-T-C	5mg/m <sup>3</sup>

### Engineering Control(s)

<b>Ventilation Requirements</b>	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.
<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

## **Protective Equipment**

<b>Eyes/Face</b>	Chemical safety glasses should be worn while product is being handled.
<b>Hand Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing impervious gloves of chemical resistance.
<b>Skin and Body Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing body suite, aprons, and/or coverall..  No special footwear is required other than what is mandated at place of work.
<b>Respiratory Protection</b>	A dust mask meeting NIOSH regulations should be worn during handling of product. Product should be treated as a low nuisance dust.
<b>Thermal Hazards</b>	Not Available

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## **Section 09 - Physical and Chemical Properties**

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### **Appearance**

<b>Physical State</b>	Solid granules
<b>Colour</b>	Purple
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not Available

### **Property**

<b>pH</b>	Not Available
<b>Melting Point/Freezing Point</b>	Not Available
<b>Initial Boiling Point and Boiling Range</b>	Not Available
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Available
<b>Flammability</b>	Non-flammable. However, the product contains potassium permanganate which is a strong oxidizer and will give off oxygen when heated.
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Available
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Potassium permanganate is soluble in water, zeolite material is insoluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not Available

<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	Potassium permanganate decomposes at approximately 240°C
<b>Viscosity</b>	Not Applicable
<b>Explosive Properties</b>	Strong oxidants like potassium permanganate may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions. Contact with oxidizable substances may cause extremely violent combustion.
<b>Specific Gravity (Water=1)</b>	Not Available
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	Not Available
<b>Molecular Weight</b>	Not Available

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## Section 10 - Stability and Reactivity

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<b>Reactivity</b>	Not Available
<b>Stability</b>	Product is stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Will not polymerize.
<b>Conditions to Avoid</b>	Not Available
<b>Incompatible Materials</b>	Potassium permanganate is incompatible with organic materials, combustible materials, reducing agents, strong acids, peroxides, alcohols, ammonium nitrate, ammonium perchlorate, dichloromethylsilane, antimony, arsenic, phosphorous, sulphur, titanium, carbon, iron salts, mercury salts, hypophosphites, hyposulphites, sulphites, oxalates, halides, hydrides, arsenites, and heat.
<b>Hazardous Decomposition Products</b>	Due to presence of potassium permanganate, the following may occur: Contact with hydrochloric acid liberates chlorine. Explodes when in contact with sulphuric acid, peroxides, nitric acid, alcohols, arsenic, phosphorous, sulphur, titanium, and anhydrides. Contact with other incompatibles results in ignition and rapid burning.

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## Section 11 - Toxicological Information

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### Acute Toxicity Estimate

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Filtra KAL	15 g/kg (rat)	Not Available	Not Available

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

### Chronic Toxicity – Carcinogenicity

Component	IARC
Filtra KAL	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

<b>Skin Corrosion/Irritation</b>	Mild irritant
<b>Ingestion</b>	Not Available

<b>Inhalation</b>	Inhalation of dust may irritate respiratory tract.
<b>Serious Eye Damage/Irritation</b>	May cause abrasion or mechanical irritation to the eyes.
<b>Respiratory or Skin Sensitization</b>	Repeated contact with potassium permanganate may cause sensitization in some individuals.
<b>Germ Cell Mutagenicity</b>	Potassium permanganate may be mutagenic based on a study in live mice. Ingestion caused significant increases in chromosome aberrations and micronuclei in the bone marrow, and sperm head abnormalities. However, these effects may have been observed in the presence of cytotoxicity. No human information was located. Positive results have been obtained in cultured cells, and negative results in bacteria.
<b>Reproductive Toxicity</b>	Disturbances in sex function & testicular changes have been noted in rats following exposure to potassium permanganate. Animals exposed orally or by inhalation to doses of 50 mg/kg body weight for various periods of time exhibited changes in spermatogenesis. Embryogenesis was also adversely affected.
<b>STOT-Single Exposure</b>	Inhalation of dust may irritate respiratory tract.
<b>STOT-Repeated Exposure</b>	Repeated intake of manganese compounds by ingestion & inhalation can result in chronic manganese poisoning characterized by impairment of the central nervous system. Early symptoms include sluggishness, sleepiness, and weakness of the legs. Advances cases show uncontrollable laughter, spastic gait, emotional disturbances, fixed facial expressions, and falling down while walking. A higher incidence of pneumonia has been found in workers exposed to some airborne manganese compounds. Men exposed to manganese dusts showed a decrease in fertility. Target organs: respiratory system, central nervous system, blood, and kidneys.
<b>Aspiration Hazard</b>	Aspiration may lead to pulmonary edema.
<b>Synergistic Materials</b>	Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Potassium Permanganate	EC <sub>50</sub> (Green algae, 72hr): 0.45mg/L	LC <sub>50</sub> (Oncorhynchus mykiss, 96hr): 3.46mg/L	EC <sub>50</sub> (Daphnia magna, 48hr): 0.084mg/L
<b>Biodegradability</b>	Not Available		
<b>Bioaccumulation</b>	Not Available		
<b>Mobility</b>	Not Available		
<b>Other Adverse Effects</b>	Product rated as ecologically safe.		

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## Section 13 – Disposal Considerations

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

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## Section 14 – Transport Information

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<b>UN Number</b>	Not Regulated
<b>UN Proper Shipping Name</b>	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated
<b>Packaging Group</b>	Not Regulated

<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	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.

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## **Section 15 – Regulatory Information**

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**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.**

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## **Section 16 – Other Information**

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**Preparation Date** March 24, 2016

**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<sup>®</sup> 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

## **ClearTech Industries Inc. - Locations**

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