SECTION 1: IDENTIFICATION

Product Identifier
Product Form: Mixture
Product Name: Potassium Chloride By-Product Solution

Intended Use of the Product

Name, Address, and Telephone of the Responsible Party

Manufacturer
CHEMTRADE LOGISTICS INC.
155 Gordon Baker Road
Suite 300
Toronto, Ontario M2H 3N5
For MSDS Info: (416) 496-5856
www.chemtradelogistics.com

Emergency Telephone Number
Emergency Number : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300
Chemtrade Emergency Contact: (866) 416-4404
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture
Classification (GHS-US)
Not classified

Label Elements
GHS-US Labeling No labeling applicable

Other Hazards
Other Hazards Not Contributing to the Classification: Not available
Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>% (w/w)</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>60 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>(CAS No) 7447-40-7</td>
<td>5 – 10, 10 - 30</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200]. More than one of the ranges of concentration prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Using proper respiratory protection, immediately move the exposed person to fresh air. Keep at rest and in a position comfortable for breathing. Seek immediate medical advice.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse.

Eye Contact: Immediately rinse with water for a prolonged period (at least 15 minutes) while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Rinse mouth.

Most Important Symptoms and Effects Both Acute and Delayed

General: None expected under normal conditions of use.

Inhalation: May cause respiratory irritation. Symptoms may be delayed.
Potassium Chloride By-Product Solution
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Skin Contact: May cause skin irritation.
Eye Contact: May cause eye irritation.
Ingestion: Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.

Indication of Any Immediate Medical Attention and Special Treatment Needed
If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media: Do not use water jet. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not flammable.
Explosion Hazard: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire.
Firefighting Instructions: Do not get water inside containers. Do not apply water stream directly at source of leak.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products: Not available
Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections
Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedure
General Measures: Avoid all contact with skin, eyes, or clothing. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

For Non-Emergency Personnel
Protective Equipment: Use recommended respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.

For Emergency Personnel
Protective Equipment: Use recommended respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.

Environmental Precautions
Do not allow to enter drains or water courses. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up
For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling
Hygiene Measures: Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities
Storage Conditions: Store in original container or corrosive resistant and/or lined container. Store in a dry, cool and well-ventilated place. Store away from other materials.
Specific End Use(s)
For professional use only.
Potassium Chloride By-Product Solution

Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Exposure Controls
Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment: Gloves. Protective goggles.
Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear chemically resistant protective gloves.
Eye Protection: Chemical goggles or safety glasses.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear to white colored solution
Odor: None
Odor Threshold: Not available
pH: 5 - 6.5
Melting Point: Not applicable
Freezing Point: 0 °C (32 °F)
Boiling Point: 100 °C (212 °F)
Flash Point: Not applicable
Auto-ignition Temperature: Not applicable
Decomposition Temperature: Not available
Flammability (solid, gas): Not flammable
Lower Flammable Limit: Not applicable
Upper Flammable Limit: Not applicable
Vapor Pressure: Not available
Relative Vapor Density at 20 °C: Not available
Relative Density: Not available
Specific Gravity: 1.01 - 1.25
Solubility: 100%
Partition Coefficient: N-Octanol/Water: Not available
Viscosity: Not available
Explosion Data – Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Stable at standard temperature and pressure.
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Extremely high or low temperatures.
Potassium Chloride By-Product Solution
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 11: TOXICOLOGICAL INFORMATION
Information on Toxicological Effects - Product
Acute Toxicity: Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Potential Adverse Human Health Effects and Symptoms: Harmful if swallowed.
Symptoms/Injuries After Inhalation: May cause respiratory irritation. Symptoms may be delayed.
Symptoms/Injuries After Skin Contact: May cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause eye irritation.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.

Information on Toxicological Effects - Ingredient(s)
LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Oral Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>2600 mg/kg</td>
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SECTION 12: ECOLOGICAL INFORMATION
Toxicity  Not classified

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Potassium chloride (7447-40-7)</td>
<td></td>
</tr>
<tr>
<td>LC50 Fish 1</td>
<td>1060 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>825 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>LC 50 Fish 2</td>
<td>750 - 1020 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])</td>
</tr>
</tbody>
</table>

Persistency and Degradability
Potassium Chloride By-Product Solution
Persistency and Degradability  Not established.

Bioaccumulative Potential
Potassium Chloride By-Product Solution
Bioaccumulative Potential  Not established.

Mobility in Soil  Not available

Other Adverse Effects  Not available

SECTION 13: DISPOSAL CONSIDERATIONS
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT  Not regulated for transport
14.2 In Accordance with IMDG  Not regulated for transport
14.3 In Accordance with IATA  Not regulated for transport
14.4 In Accordance with TDG  Not regulated for transport

SECTION 15: REGULATORY INFORMATION
US Federal Regulations
Potassium Chloride By-Product Solution

Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Potassium chloride (7447-40-7) | Listed on the United States TSCA (Toxic Substances Control Act) inventory |

**US State Regulations**

**Canadian Regulations**

<table>
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<tr>
<td>WHMIS Classification</td>
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<tr>
<td>Uncontrolled product according to WHMIS classification criteria</td>
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</table>

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<tr>
<th>Potassium chloride (7447-40-7)</th>
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</thead>
<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>WHMIS Classification</td>
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<tr>
<td>Uncontrolled product according to WHMIS classification criteria</td>
</tr>
</tbody>
</table>

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

Revision date : 05/01/15
Indication of Changes : Revision date
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

Party Responsible for the Preparation of This Document
CHEMTRADE LOGISTICS, INC.
For MSDS Info: (416) 496-5856

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA’S “Right to Know” (29 CFR 1910.1200) and Canada’s WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.