



255 Norman.  
Lachine (Montreal), Que  
H8R 1A3

# Material Safety Data Sheet

## EMERGENCY NUMBERS:

(USA) CHEMTREC : 1(800) 424-9300 (24hrs)  
(CAN) CANUTEC : 1(613) 996-6666 (24hrs)  
(USA) Anachemia : 1(518) 297-4444  
(CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: B-6 E		TDG CLASS: 4.3 PIN: UN2257 PG: I

## Section I. Product Identification and Uses

<b>Product name</b>	<b>POTASSIUM</b>	<b>CI#</b>	Not available.
<b>Chemical formula</b>	K	<b>CAS#</b>	7440-09-7
<b>Synonyms</b>	Kalium, AC-7559, 71668	<b>Code</b>	AC-7559
<b>Supplier</b>	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	<b>Formula weight</b>	39.10
		<b>Supersedes</b>	
<b>Material uses</b>	For laboratory use only.		

## Section II. Ingredients

Name	CAS #	%	TLV
1) POTASSIUM	7440-09-7	98-100	Not established by ACGIH

### Toxicity values of the hazardous ingredients

POTASSIUM:  
INTRAPERITONEAL (LD50): Acute: 700 mg/kg (Mouse).

### Section III. Physical Data

<b>Physical state and appearance / Odor</b>	Solid. (Silvery-white metal. Odorless.)
<b>pH (1% soln/water)</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Percent volatile</b>	0% at 21°C
<b>Freezing point</b>	63°C
<b>Boiling point</b>	760°C
<b>Specific gravity</b>	0.86 (Water = 1)
<b>Vapor density</b>	Not available.
<b>Vapor pressure</b>	8 mm of Hg (@ 432°C)
<b>Water/oil dist. coeff.</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Solubility</b>	Reacts violently with water.

### Section IV. Fire and Explosion Data

<b>Flash point</b>	Not available.
<b>Flammable limits</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Fire degradation products</b>	Oxides of potassium. Potassium hydroxide.
<b>Fire extinguishing procedures</b>	Use only dry chemical powder, dry soda ash, dry sand or dry lime. Do not use water, foam, carbon dioxide or halocarbons (ex; carbon tetrachloride). Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. If without risk, move undamaged containing vessels or packages from fire area.
<b>Fire and Explosion Hazards</b>	Dangerous fire and explosion risk. Flammable solid. Moisture reactive material. Reacts violently in contact with water or moisture to form flammable/ explosive hydrogen gas. May spontaneously ignite in air. May ignite in moist air. Do not allow water to get inside container because of violent reaction. Catches fire if exposed to air. May re-ignite after fire is extinguished. Forms explosive peroxides on prolonged storage. Readily forms explosive peroxides on contact with air. Molten material is spontaneously flammable in air. Emits toxic fumes under fire conditions.

### Section V. Toxicological Properties

<b>Routes of entry</b>	Inhalation and ingestion. Eye contact. Skin contact. Skin absorption.
<b>Effects of Acute Exposure</b>	Harmful by ingestion, inhalation or skin absorption. Highly corrosive. Produces flammable hydrogen and poisonous/corrosive potassium hydroxide on contact with water. May cause kidney damage.
<b>Eye</b>	Direct contact with the eyes can cause irreversible damage including blindness. Causes severe burns and loss of vision. May cause permanent damage.
<b>Skin</b>	Dusts are extremely corrosive to the skin and rapidly cause severe chemical burns. Moisture on the skin, such as from perspiration, will accelerate tissue damage. Causes burns which may be delayed.
<b>Inhalation</b>	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, laryngitis, dyspnea, headache, nausea, and vomiting. May cause delayed lung injury.
<b>Ingestion</b>	Burns in mouth, pharynx and gastrointestinal tract. May be fatal. May cause hyperkalemia and cardiotoxicity. LD50: ORAL-RAT 365 mg/kg (KOH).

## Section V. Toxicological Properties

**Effects of Chronic Overexposure** May cause inflammation, ulceration, dermatitis, conjunctivitis, gastrointestinal disturbances and severe burns. See acute effects. The substance is toxic to blood, kidneys, lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Carcinogenic effects: Not available. Mutagenic effects: Not available. Teratogenic effects: Not available. Toxicity of the product to the reproductive system: Not available. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated.

## Section VI. First Aid Measures

**Eye contact** Immediate first aid is needed to prevent eye damage. Washing within 1 minute is essential to achieve maximum effectiveness. IMMEDIATELY flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Seek immediate medical attention. DO NOT use an eye ointment.

**Skin contact** Immediate first aid is needed to prevent skin damage. Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash contaminated clothing before reusing.

**Inhalation** Keep patient warm and quiet. Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Seek immediate medical attention.

**Ingestion** DO NOT induce vomiting. If conscious, wash out mouth with water. Have conscious person drink several glasses of water or milk. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water.

## Section VII. Reactivity Data

**Stability** Unstable. Keep dry and away from air. Readily forms explosive peroxides on contact with air. Conditions to avoid: High temperatures, sparks, open flames, all other sources of ignition, moisture, air, contamination.

**Hazardous decomp. products** Potassium hydroxide.

**Incompatibility** Reacts violently or explosively with: water, acetylene, acids, alcohols, boric acid, halocarbons, halogens, non-metals (P, C, S, Se, Te, etc.), metals (Hg, Al, etc.), hydrogen halides, peroxides, interhalogens, metal halides, metal oxides, nitrogen compounds (picric acid, ammonium salts, nitrobenzene, hydrazine, nitrates, nitrites, nitric acid, etc.), non-metal halides, non-metal oxides, organosulfur compounds, oxalyl dihydrides, oxidizing agents, sulfuric acid, lead sulfate, maleic anhydride, ethylene oxide, nitril fluoride, oxychlorides, dichlorine oxide, benzene, carbon disulfide, dimethyl sulfoxide, organic materials, phosgene, chlorocuprates, iodates, boron trifluoride, teflon, halogenated hydrocarbon, carbon dioxide, carbon monoxide, oxygen, chlorinated solvents, phosphorus pentoxide, metal hydroxides, silicates, sulfites, sulfates, carbonates, phosphates, nitrogen dioxide.

**Reaction Products** Reacts violently with water especially when water is added to the product. Oxidizes on contact with air. Readily forms explosive peroxides on contact with air. Contact with other material may form shock, heat or friction sensitive mixtures. Hazardous polymerization will not occur.

## Section VIII. Preventive Measures

POTASSIUM

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**Protective Clothing in case of spill and leak** Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

**Spill and leak** Evacuate the area. Eliminate all sources of ignition. Sweep up and place in container for disposal. Avoid raising dust. Keep dry! DO NOT get water inside container. Do not touch or walk through spilled material. DO NOT empty into drains. Runoff to sewer may create fire or explosion hazard. Use non-sparking tools.

**Waste disposal** According to all applicable regulations. Harmful to aquatic life at very low concentrations. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

**Storage and Handling** Storage should be under argon or kerosene. Do not store under halogenated hydrocarbons. Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe dust. Keep away from combustible material. Keep in a tightly closed container and manipulate in moisture free atmosphere (Flush with argon). Manipulate under an adequate fume hood. Use explosion proof equipment. Use non-sparking tools. Do not use handling equipment or containers composed of magnesium, aluminum or their alloys. Follow procedures specified in the National Fire Protection Association Codes and Standards for handling potassium. Store and handle under argon. Protect from moisture. Do not allow water to get inside container because of violent reaction. May catch fire if manipulated in presence of moisture. Empty containers may contain a hazardous residue. Handle and open container with care. Minimize dust generation and exposure - use dust mask or appropriate protection. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling.

## Section IX. Protective Measures

**Protective clothing** Face shield and splash goggles. Impervious gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. If use conditions generate dusts, wear a NIOSH-approved respirator appropriate for those emission levels. Appropriate respirators may be a full facepiece or a half mask air-purifying cartridge respirator with particulate filters, a self-contained breathing apparatus in the pressure demand mode, or a supplied-air respirator. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location.

**Engineering controls** Local mechanical exhaust ventilation capable of minimizing dust emissions at the point of use. Do not use in unventilated spaces.

## Section X. Other Information

**Special Precautions or comments** Reactive flammable solid! Corrosive! Dangerously reactive material! Do not allow contact with water. Corrosive effects on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain. Strict adherence to first aid measures following any exposure is essential. Do not breathe dust. Avoid all contact with the product. Avoid prolonged or repeated exposure. Use in a chemical fume hood. Keep away from heat, sparks and flame. Use non-sparking tools. Contact with other material may cause fire and/or explosion. Contact with other material may form shock, heat or friction sensitive mixtures. Air and moisture sensitive. May ignite on contact with water or moist air. Reacts violently with water, liberating highly flammable gases. Never add water to this product. May form explosive peroxides on prolonged storage. Readily forms explosive peroxides on contact with air. Store and handle under argon. Potassium readily forms hazardous oxides at room temperature even under oil. Storage should be under argon or kerosene. Do not attempt to cut the material if the surface is other than silver or black in appearance because a potentially explosive condition could exist. Handle and open container with care. Container should be opened only by a technically qualified person. RTECS NO: TS6460000 (Potassium).



NFPA

Prepared by MSDS Department/Département de F.S..

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