

# Potassium Perchlorate

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Potassium Perchlorate
<b>Other Means of Identification</b>	Perchloric acid potassium salt, Potassium hyperchloride
<b>Product Code(s)</b>	PO6110
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	0748

## SECTION 2. HAZARD IDENTIFICATION

### Classification

Oxidizing solid - Category 1; Acute toxicity (Oral) - Category 4

### Label Elements



Signal Word:  
Danger

### Hazard Statement(s):

May cause fire or explosion; strong oxidizer.  
Harmful if swallowed.

### Precautionary Statement(s):

#### Prevention:

Keep away from heat.  
Take any precaution to avoid mixing with combustibles.  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

If SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN: Wash with plenty of water.  
If skin irritation occurs: Get medical advice/attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.

---

Product Identifier: Potassium Perchlorate

Date of Preparation: October 26, 2016

Page 01 of 06

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Other Hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Potassium perchlorate	7778-74-7	> 99	Perchloric acid potassium salt, Potassium hyperchloride

**SECTION 4. FIRST-AID MEASURES**

**First-aid Measures**

**Inhalation**

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

**Skin Contact**

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention.

**Eye Contact**

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

**Ingestion**

Rinse mouth with water. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

**First-aid Comments**

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

**Most Important Symptoms and Effects, Acute and Delayed**

None known.

**Immediate Medical Attention and Special Treatment**

**Special Instructions**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media**

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire. Use flooding quantities of water spray or fog. Use water to keep non-leaking, fire-exposed containers cool.

**Unsuitable Extinguishing Media**

DO NOT use carbon dioxide, or other agents that smother the flames.

**Specific Hazards Arising from the Product**

Oxidizer. May intensify fire. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: corrosive hydrogen chloride; corrosive chlorine. Oxygen.

**Special Protective Equipment and Precautions for Fire-fighters**

Product Identifier: Potassium Perchlorate

Date of Preparation: October 26, 2016

Use extreme caution. Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible. Oxidizer. Prevent contact with flammable and combustible materials. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

### Methods and Materials for Containment and Cleaning Up

Small spills or leaks: collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Flush spill area.

Large spills or leaks: contact emergency services and manufacturer/supplier for advice.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Avoid generating dusts. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Never return unused or contaminated product to its original container. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Keep amount in storage to a minimum. Store in a closed container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Potassium perchlorate	Not established		Not established			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

#### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

**Appearance** White crystalline powder. Absorbs moisture from the air.

Product Identifier: Potassium Perchlorate

Date of Preparation: October 26, 2016

<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	5.0 - 6.5 (0.1 M solution)
<b>Melting Point/Freezing Point</b>	~ 400 °C (752 °F) (melting); ~ 400 °C (752 °F) (freezing)
<b>Initial Boiling Point/Range</b>	653 °C (1207 °F)
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Will not burn.
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	~ 0 kPa (0 mm Hg)
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	2.53 at 20 °C
<b>Solubility</b>	Slightly soluble in water; Mildly soluble in ketones (e.g. acetone).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	> 400 °C (752 °F)
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Oxidizer. May intensify fire.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Decomposes in the presence of increased temperature, heat.

### Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials. Temperatures above 400.0 °C (752.0 °F)

### Incompatible Materials

Alcohols (e.g. ethanol), metals (e.g. aluminum), strong acids (e.g. hydrochloric acid), strong reducing agents (e.g. hydrides).

### Hazardous Decomposition Products

None known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

### Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Product Identifier: Potassium Perchlorate

Date of Preparation: October 26, 2016

**Serious Eye Damage/Irritation**

Causes serious eye irritation based on skin irritation information.

**STOT (Specific Target Organ Toxicity) - Single Exposure****Inhalation**

At high concentrations may cause nose and throat irritation.

**Ingestion**

Harmful May cause irritation of the mouth, throat and stomach.

**Aspiration Hazard**

No information was located.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

No information was located.

**Respiratory and/or Skin Sensitization**

No information was located.

**Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
Potassium perchlorate	Not Listed	Not Listed	Not Listed	Not Listed

**Reproductive Toxicity****Development of Offspring**

No information was located.

**Sexual Function and Fertility**

No information was located.

**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

No information was located.

**Interactive Effects**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Bury in a licensed landfill according to federal, provincial/state, and local regulations.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
IMO (Marine)	UN1489	Potassium Perchlorate	5.1	II
IATA (Air)	UN1489	Potassium Perchlorate	5.1	II
US DOT	UN1489	Potassium Perchlorate	5.1	II
Canadian TDG	UN1489	Potassium Perchlorate	5.1	II

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

Product Identifier: Potassium Perchlorate

Date of Preparation: October 26, 2016

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

**Date of Preparation** October 26, 2016

**Date of Last Revision** October 26, 2016

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.