

# Potassium Chlorate

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Potassium Chlorate
<b>Other Means of Identification</b>	Chloric acid potassium salt, Potcrate
<b>Product Code(s)</b>	PO2410, PO2411
<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>	0751

## SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

### Classification

Oxidizing solid - Category 1; Acute toxicity (Oral) - Category 4; Acute toxicity (Inhalation) - Category 4; Eye irritation - Category 2B

### Label Elements



Signal Word:  
Danger

### Hazard Statement(s):

May cause fire or explosion; strong oxidizer.  
Harmful if swallowed or if inhaled.  
May be harmful in contact with skin.  
Causes mild skin irritation.  
Causes eye irritation.

### Precautionary Statement(s):

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Take any precaution to avoid mixing with combustibles.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.

### Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.

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

IF SWALLOWED: Immediately call a POISON CENTRE/doctor/

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

Very toxic to aquatic life.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Potassium chlorate	3811-04-9	> 99	Chloric acid potassium salt, Potcrate

### 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 breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

##### Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 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. 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

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

##### Unsuitable Extinguishing Media

None known.

#### Specific Hazards Arising from the Product

Oxidizer. May cause or intensify fire. Heating may cause a fire or explosion.

In a fire, the following hazardous materials may be generated: Oxygen.

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## Special Protective Equipment and Precautions for Fire-fighters

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. Dike and recover contaminated water for appropriate disposal. 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

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. 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

Avoid generating dust. Use water fog or spray curtain to reduce amount of dust in air. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Prevent accidental contact with flammable and combustible materials. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this material.

### Conditions for Safe Storage

Store in an area that is: dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard). 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 chlorate	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 powder.

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<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	368 °C (694 °F) (melting); 368 °C (694 °F) (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<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>	2.337 at 20 °C
<b>Solubility</b>	Moderately soluble in water; Highly soluble in alkalies (e.g. sodium hydroxide).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not applicable
<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
<b>Molecular Weight</b>	122.55

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Oxidizer. May cause or intensify fire.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Incompatible materials. Temperatures above 400.0 °C (752.0 °F)

### Incompatible Materials

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

### Hazardous Decomposition Products

Corrosive chlorine; oxygen (a strong oxidizer). potassium oxide.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Potassium chlorate	> 2000 mg/kg (rabbit)	1870 mg/kg (rat)	> 2000 mg/kg (rabbit)

### Skin Corrosion/Irritation

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

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**Serious Eye Damage/Irritation**

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

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

Harmful.

**Ingestion**

Harmful.

**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 chlorate	Not Listed	Not designated	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**

Dispose of contents and container in accordance with local, regional, national and international regulations.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN1485	POTASSIUM CHLORATE	5.1 Oxidizing Substances	II
Canadian TDG	UN1485	POTASSIUM CHLORATE	5.1 Oxidizing Substances	II

**Special Precautions** Not applicable

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

Not applicable

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## 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 27, 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.