

# Material Safety Data Sheet

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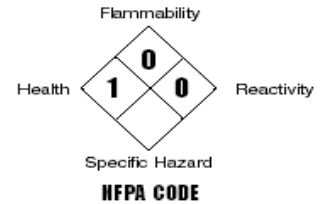
Supersedes: May 31, 2001

First Issued:

## Section I - Product and Company Identification

Product Name: **Potash**PotashCorp MSDS No.: 1ERG No.: n/a1101 Skokie Blvd., Northbrook, IL 60062  
Phone (800) 241-6908 \* (847) 849-4200Suite 500, 122 - 1st Avenue South  
Saskatoon, Saskatchewan Canada S7K 7G3  
Phone (800) 667-0403 from Canada \*  
(800) 667-3930 from USA**Emergencies (800) 424-93000 (CHEMTREC)**Web Site [www.potashcorp.com](http://www.potashcorp.com)

Health Emergencies, Contact Your Local Poison Center

Common Name: Potash Formula: KCl Synonym: Muriate of Potash Uses: Fertilizer, Industrial Chemical

## Section II - Composition/Information On Ingredients

CHEMICAL NAME	CAS No.	Exposure Limits								
		OSHA PEL		TLV - TWA		STEL		CEIL	% by	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	Weight
Potassium Chloride	7447-40-7			10*						95-99.8
Sodium Chloride	7647-14-5			10*						0.1-4

May contain up to 0.25% base lubrication oil and/or 0.03% neutralized primary aliphatic amines

\* Based on ACGIH nuisance dust limits

## Section III - Hazard Identification

Potential Acute Health Effects: May cause irritationEyes and Skin: Mild irritation, especially in open wounds.Inhalation: Exposure to high dust concentrations may cause irritation of mucous membranes.Ingestion: A large body load may cause vomiting, diarrhea, cramps, tingling in hands and feet, weak pulse, and circulatory disturbances.Potential Chronic Health Effects: Lung symptomsCARCINOGENICITY LISTS: IARC Monograph: No NTP: No OSHA: No

## Section IV - First Aid Measures

Eyes: Flush eyes with water, including under upper and lower lids, for at least 15 minutes. Get medical attention if pain and irritation persists.Skin: Wash thoroughly with water. Obtain medical advice if rash develops.Ingestion: Administer water if patient is conscious. Ingesting potash will usually cause purging of the stomach by vomiting. Obtain medical attention.Inhalation: Remove to fresh air. Obtain medical attention if discomfort persists.

## Section V - Fire Fighting Measures

Flash Point: Not Applicable Autoignition Temperature: Not ApplicableLower Explosive Limit: Not Applicable Upper Explosive Limit: Not ApplicableUnusual Fire and Explosion Hazards: When subjected to extremely high temperatures, it may release small quantities of chlorine gas.Extinguishing Media: As required for surrounding fire. Potash is non-flammable and does not support combustion.

### Special Firefighting

Procedures and Equipment: Wear full protective clothing and self-contained breathing apparatus.

**Section VI - Accidental Release Measures**

<b>Small Spill:</b>	Sweep up and use as fertilizer if non-contaminated.
<b>Large Spill:</b>	Collect with appropriate equipment. If on a hard surface, sweep up residue with brooms. If on soil, remove and collect the top 5cm of soil.
<b>Release Notes:</b>	Non-toxic to aquatic organisms as defined by USEPA. If in the U.S., contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number 800-424-8802. In case of accident or road spill notify: CHEMTREC IN USA at 800-424-9300; CANUTEC in Canada at 613-996-6666 CHEMTREC in other countries at (International code)+1-703-527-3887.
<b>Comments:</b>	See Section XIII for disposal information and Section XV for regulatory requirements. Large and small spills may have a broad definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.

**Section VII - Handling and Storage**

<b>Ventilation:</b>	Local exhaust to reduce dust concentrations below recommended levels.
<b>Handling:</b>	Avoid generating dust by excessive or unnecessary movement.
<b>Storage:</b>	Store in a dry location. Avoid contact with aluminum or carbon steel to minimize corrosion.

**Section VIII - Exposure Controls/Personal Protection**

**Engineering Controls:** May be necessary to minimize dust levels.

**PERSONAL PROTECTION:**

<b>Eye Protection:</b>	Use tight-fitting safety goggles in areas of high dust concentration.
<b>Protective Clothing:</b>	Gloves, long sleeve shirts and long pants. Launder work clothing regularly.
<b>Respiratory Protection:</b>	NIOSH approved dust respirators until engineering controls are implemented.
<b>Other Protective Clothing or Equipment:</b>	Optional.

**Section IX - Physical and Chemical Properties**

<b>Appearance/Color/Odor:</b>	White to red solid, fine to 4mm size, granules which may have a slight oily odour.	
<b>Melting Point/Range:</b>	<u>771-773°C</u>	<b>Boiling Point:</b> <u>1500°C (sublimates)</u>
<b>Solubility in Water:</b>	<u>347 g/L @ 20°C</u>	<b>Boiling Point/Range:</b> <u>1420-1500°C</u>
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	<u>2</u>	<b>Vapor Pressure(mmHg):</b> <u>Not Applicable (no data available)</u>
<b>Vapor Density:</b>	<u>Not Applicable</u>	<b>Molecular Weight:</b> <u>74</u>
<b>Bulk Density:</b>	<u>1.98 g/ml</u>	<b>% Volatiles:</b> <u>&lt;0.5</u>
<b>pH:</b>	<u>about 7</u>	<b>Evaporation Rate:</b> <u>Not Applicable</u>
<b>Viscosity:</b>	<u>Not Applicable</u>	

**Section X - Stability and Reactivity**

Stability: Stable

Hazardous Polymerization: Will not occur

Polymerization:

Conditions to Avoid: None

Materials to Avoid (Incompatibles): Contact with strong acid may produce hydrogen chlorine gas; contact with hot nitric acid may product toxic nitrosyl chloride.

Hazardous Decomposition Products: None

**Section XI - Toxicological Information**

Significant Routes of Exposure: Skin, eyes, ingestion, inhalation

Toxicity to Animals: **Acute Oral Toxicity:** (mouse, rat) LD<sub>50</sub> = 1500 - 2600 mg/kg bw. **Skin Irritation/Corrosion:** No data available. **Eye Irritation/Corrosion:** No data availableSpecial Remarks on Toxicity to Animals: Based on toxicity data for another salt compound (i.e. potassium nitrate). Not expected to be toxic by dermal exposure as defined by OSHA. **Genetic Toxicity in vitro** – Gene mutation – (*Saccaromyces cerevisiae*) - Mitotic recombination: NOAEL = 300 mM.

Other Effects on Humans: Large doses by mouth can cause gastrointestinal irritation, purging, weakness and circulatory disturbances. Potassium chloride used as a dietary supplement in food for human consumption is generally recognized as safe (GRAS).

Special Remarks on Chronic Effects on Humans: Not reported to be carcinogenic mutagenic, teratogenic or allergenic

Special Remarks on Other Effects on Humans: None.

**Section XII - Ecological Information**Ecotoxicity: **Acute toxicity to Fish:** (*Lepomis macrochirus*) (blue gill) – 96 hour - LC<sub>50</sub> = 2010 KCl/L; **Acute Toxicity to Aquatic Invertebrates:** (*Daphnia magna*) - 48 hours - EC<sub>50</sub> = 337 – 825 mg/L; (*Physo heterostropha*) - 96 hrs - LC<sub>50</sub> = 940 mg/L. **Acute Toxicity to Aquatic Plants (Algae)** (*Nitzschia linearis*) diatom - 5 days- 120 hour TL<sub>m</sub> = 1,337 ppm KCl; (*Scendesmus subspicatus*) 72 hour - EC<sub>50</sub> = 2,500 mg/L. (*Chlorella vulgaris*) - 3 – 4 months - NOEC = 600 KCl/L, LOEL = 700 KCl/L. **Chronic Toxicity to Fish:** No data available. **Chronic Toxicity to Aquatic Invertebrates:** No data available.Environmental Fate: Will remain in solution until solubility product (350 g/L) reached. Ions may be absorbed by plants or by animals ingesting water containing potash. **Stability in water:** Ions can persist, dissociates in water. **Stability in soil:** Binds to clay particles. **Distribution:** 1.51 x 10<sup>-8</sup> % to air; 45.2 % to water; 54.7% to soil; 0.0755% to sediment.

Toxicity: Not toxic to aquatic organisms defined by USEPA.

Degradation Products: Chloride and potassium ions. No data available for biodegradability, photodegradation or bioaccumulation.

**Section XIII - Disposal Considerations**

Product Disposal: Uncontaminated product may be used as fertilizer. Otherwise, dispose according to Federal State or Provincial regulations in a landfill approved to receive potash.

General Comments: Because of its solubility, potash should not be disposed of in a location where run-off will escape.

**Section XIV - Transportation Information**

	USDOT	TDG - Canada
Proper Shipping Name:	Not Regulated	Not Regulated
Hazard Class:		
Identification Number:		
Packing Group (Technical Name):		
Labeling / Placarding:		
Authorized Packaging:		
Notes:		
European Transportation:		

**Section XV - Regulatory Information****UNITED STATES:****SARA Hazard Category:**

This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire: No Pressure Generating: No Reactivity: No Acute: No Chronic: No

40 CFR Part 355-Extremely Hazardous Substances:

40 CFR Part 370-Hazardous Chemical Reporting:

All intentional ingredients listed on the TSCA inventory.

**SARA Title III Information:**

This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Chemical	CAS No.	Percent by Weight	CERCLA RQ (lbs)*	SARA (1986) Reporting		
				311	312	313
Potassium Chloride	7447-40-7	95-99.8	NA	No	No	No
Sodium Chloride	7647-14-5	0.1-4	Na	No	No	No

**CERCLA/Superfund, 40 CFR Parts 117,302: (RQ) Substances,** If this product contains components subject to substances designated as **CERCLA Reportable Quantity**, it will be designated in the above table with the **RQ** value in pounds. If there is a release of **RQ Substance** to the environment, notification to the National Response Center, Washington D.C. (1-800-424-8802) is required.

**CANADA:**

**WHMIS Hazard Symbol and Classification:** Not Controlled

**Ingredient Disclosure List:** This product does contain ingredient(s) on this list.

**Environmental Protection:** All intentional ingredients are listed on the DSL (Domestic Substance List).

**EINECS#:** (Potassium Chloride) 231-211-8  
(Sodium Chloride) 231-554-3

**California: Prop 65:** This is not a chemical known to cause cancer, nor is it listed.

**Section XVI - Other Information**

**NFPA Hazard Ratings:** Health: 1 Fire: 0 Reactivity: 0 Special Hazards: \_\_\_\_\_  
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

**COMMENTS:**

**Section(s) changed since last revision:** V, IX, XI, XII, XV

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