

P.O. Box 1271, 629 North Industrial Road, El Dorado, KS 67042  
**PHONE:** MEARS: (800) 345-9143  
**EMERGENCY PHONE:** CHEMTREC (800) 424-9300 (24 Hours)

**DATE ISSUED:** 09/23/13  
**SUPERSEDES:** 06/24/05

**I. PRODUCT IDENTIFICATION**

**PRODUCT NAME:** GUARDIAN™ Potassium Chloride    **Chemical Family:** Inorganic Salt  
**Chemical Name/Synonyms:** Potassium Chloride  
**Common Name:** Ice Melt, Potash, MOP

**II. COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL NAME	CAS REGISTRY #	PEL/TLV
Formulated with the following ingredients.		
Potassium Chloride (KCL)	7447-40-7	None

**III. HEALTH HAZARD INFORMATION**

**EMERGENCY OVERVIEW:** Primary Route(s) of Entry: Eyes, Skin, Inhalation, Ingestion  
**POTENTIAL HEALTH EFFECTS:** May cause eye and skin irritation with a stinging sensation. Dust may be irritating to mucous membranes. May be harmful if swallowed. No chronic effects known.  
**EYE:** May cause eye irritation including stinging, watering and redness.  
**SKIN:** May cause mild irritation including redness and burning sensation.  
**INHALATION:** Overexposure irritates trachea and upper breathing passages.  
**INGESTION:** May be harmful if swallowed. Ingesting large quantities may cause gastrointestinal irritation with nausea, vomiting, epigastric distress, abdominal discomfort and diarrhea.  
**MEDICAL CONDITIONS AGGRAVATED:** None known. Pre-existing respiratory conditions may be aggravated by exposure to dust.  
**POTENTIAL CARCINOGEN STATUS (Source of Information - Registry of Toxic Effects):** None listed.

**IV. FIRST AID AND EMERGENCY MEASURES**

**Call a physician immediately in all cases of suspected poisoning.**  
**EYES:** Flush eyes with running water for at least 15 minutes until irritation subsides. Get medical attention if irritation persists.  
**SKIN:** Remove contaminated clothing and wash skin with water and mild detergent and copious amounts of running water. Get medical attention if irritation persists.  
**INHALATION:** If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.  
**INGESTION:** If large amounts are swallowed, seek emergency medical attention. If victim is drowsy or unconscious and vomiting, place on left side with the head down and do not give anything by mouth. If victim is conscious and alert and ingestion occurred within the last hour, vomiting should be induced for ingestion of large amounts preferably under direction from a physician or poison center. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

**V. FIRE FIGHTING MEASURES**

<b>FLASH POINT (Method Used):</b> Not Applicable	<b>NFPA HAZARD Rating</b>	0 Least	1 Health 0 Flammability 0 Reactivity
<b>AUTO IGNITION TEMPERATURE:</b> Not Applicable		1 Slight	
<b>LOWER EXPLOSION LIMITS:</b> Not Applicable		2 Moderate	
<b>UPPER EXPLOSION LIMITS:</b> Not Applicable		3 High	
<b>EXPLOSION HAZARDS:</b> Not an explosion hazard.		4 Severe	

**FIRE EXTINGUISHING MEDIA:** Determined by surrounding fire. Not considered combustible.  
**Fire Fighting Procedures:** Wear approved self-contained breathing apparatus and full protective clothing. Dike to prevent runoff from entering drains, sewers, or bodies of water. Avoid breathing vapors or dusts.  
**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition products may include toxic and corrosive fumes of chlorides.

**FIRE FIGHTING INSTRUCTIONS:** Positive pressure, self-contained breathing apparatus is required for all fire fighting activities involving hazardous materials. Full structural fire fighting gear is the minimum acceptable attire. The need for proximity, entry, flashover and/or special chemical protective clothing needs to be determined for each incident by a competent fire fighting safety professional. Water used for fire suppression and cooling may become contaminated. Discharge to sewer system(s) or the environment may be restricted, requiring containment and proper disposal of water.

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**VI. ACCIDENTAL RELEASE MEASURES**

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**RELEASE NOTES:** If material is spilled, prevent large quantities from contact with waterways or vegetation. If contaminated, recover and reuse product. Remaining residue can be thoroughly diluted with large volume of water.

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**VII. MATERIAL HANDLING AND STORAGE**

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**HANDLING:** The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits. Wash thoroughly after handling. Wash contaminated clothing. Use good personal hygiene practice.  
**STORAGE:** Store in a cool dry place if possible. Separate from other pesticides, fertilizers, seed, feed, foodstuffs, and away from drains, sewers, and water sources. Protect bags or other containers from damage. Keep bags or containers closed when not in use.  
**OTHER PRECAUTIONS:** Do not store near strong acids. Keep in original, sealed containers.

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**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

**PERSONAL PROTECTION EQUIPMENT:**

**EYES AND FACE:** Safety glasses

**RESPIRATORY:** Dust mask when applied in confined areas.

**GLOVES:** Impervious gloves

**PROTECTIVE CLOTHING:** Impervious boots

**WORK HYGIENIC PRACTICES:** Wash thoroughly after handling. Remove contaminated clothing and wash. Keep out of open cuts and wounds.

**COMMENTS:** Eyewash station and emergency shower availability recommended when applied in confined areas.

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**IX. PHYSICAL AND CHEMICAL PROPERTIES**

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**BOILING POINT:** Sublimes at 1,500°C (2,732°F)

**pH:** 5.4 - 10.0 @ 5% solution

**MELTING POINT:** 772 to 776°C (1423 to 1428°F)

**SPECIFIC GRAVITY:** 1.986 - 1.990

**VAPOR DENSITY (air=1):** 2.57

**EVAPORATION RATE:** Not Applicable

**ODOR/TASTE:** None / Strong saline

**VAPOR PRESSURE:** Approximately zero

**APPEARANCE:** White crystalline or granulated solid

**SOLUBILITY IN WATER:** 99.5 -99.999%; 34.2 g/100mL

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**X. STABILITY AND REACTIVITY INFORMATION**

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**CONDITIONS TO AVOID:** None known.

**POLYMERIZATION:** Will not occur.

**STABILITY:** Stable

**INCOMPATIBLE MATERIALS:** Avoid contact with strong acids. KCL may react violently with bromine trifluoride and may explode if mixed with potassium permanganate and sulfuric acid. Mildly corrosive to metals in presence of moisture.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None known

**HAZARDOUS POLYMERIZATION:** Will not occur

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**XI. TOXICOLOGICAL INFORMATION**

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**EYE EFFECTS:** Mild irritation

**ORAL LD<sub>50</sub>:** Not known

**SKIN EFFECTS:** Mild irritation

**INHALATION LC<sub>50</sub>:** Not known

**DERMAL LC<sub>50</sub>:** Not known

**SENSITIZATION:** Not known

**ACUTE EFFECTS FROM OVER EXPOSURE:** Dust may be irritating to mucous membranes. May cause skin and eye irritation with a stinging sensation. Ingesting large quantities may cause gastrointestinal irritation with nausea, vomiting, epigastric distress, abdominal discomfort, and diarrhea.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** None known

**CARCINOGENICITY:****IARC:** Not Listed**OSHA:** Not Listed**NTP:** Not Listed**OTHER:** Not Listed

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**XII. ECOLOGICAL INFORMATION**

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**ECOTOXICITY:** Dissolution of large quantities in water may create an elevated level of salinity that may be harmful to fresh water aquatic species and to plants that are not salt-tolerant.**BOD and COD:** No data found

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**XIII. DISPOSAL CONSIDERATIONS**

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**DISPOSAL METHODS:** Dispose according to Federal EPA procedures as outlined in the Resource Conservation Recovery ACT (RCRA) and follow state and local guidelines.

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**XIV. TRANSPORTATION INFORMATION**

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**DOT TRANSPORTATION:** Not Regulated**REPORTABLE QUANTITY (RQ):** Not Applicable**PROPER SHIPPING NAME:** Not Applicable**ID NO.:** Not Applicable**HAZARD CLASS:** Not Applicable**MARINE POLLUTION #1:** Not Applicable**U.S. SURFACE FREIGHT CLASS:** Not Applicable**HM 181 SHIPPING NAME:** Not Regulated

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**XV. REGULATORY INFORMATION - UNITED STATES**

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**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):****N Immediate (Acute Health)****SEC 302:** Not Applicable**N Delayed (Chronic Health)****SEC 304:** Not Applicable**N Fire****SEC 313:** Not Applicable**N Sudden Release of Pressure****CERCLA RQ:** Not Applicable**N Reactivity****CAA RQ:** Not Applicable**EPA REGISTRATION NO:** Not Applicable

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For further information, contact: MEARS Fertilizer, Inc., P.O. Box 1271, 629 North Industrial Road, El Dorado KS 67042.