



LABORATORY CHEMICALS AND CONSUMABLES

# MATERIAL SAFETY DATA SHEET

## POTASSIUM CHLORIDE

### 1. Chemical Product and Company information.

**Product name:** Potassium Chloride

**Contact Information:**

Radchem cc  
PO Box 166982  
Brackendowns  
Alberton 1454  
Telephone : **011 867 3726 / 2864**

### 2. Hazard Identification

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

### 3. Composition / information on ingredients

**CAS #:** 7447-40-7

**Synonym:**

**Chemical Name:** Potassium Chloride

**Chemical Formula:** KCl

### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by



mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

### **5. Fire-fighting measures**

**Flammability of the Product:** Non-flammable.

**Fire Hazards in Presence of Various Substances:** Not applicable

**Explosion Hazards in Presence of Various Substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of oxidizing materials.

**Fire Fighting Media and Instructions:** Not applicable

**Special Remarks on Fire Hazards:** Not applicable

**Special Remarks on Explosion Hazards:** May result in explosion with potassium permanganate and sulphuric acid.

### **6. Accidental release measures**

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### **7. Handling and storage**

**Precautions:** Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

### **8. Exposure controls/personal protection**

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### **9. Physical and chemical properties**

**Physical state and appearance:** Solid

**Odour:** Odourless

**Taste:** Saline. (Strong)

**Odour Threshold:** Not available

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water



<p><b>Colour:</b> White</p> <p><b>Boiling Point:</b> 1420°C</p> <p><b>Melting Point:</b> 770°C</p> <p><b>Critical Temperature:</b> Not available</p> <p><b>Specific Gravity:</b> 1.987 (Water = 1)</p> <p><b>Vapour Density:</b> Not available</p> <p><b>Volatility:</b> Not available</p>	<p><b>Solubility:</b> Soluble in cold water, hot water. Very slightly soluble in methanol, n-octanol.</p>
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### **10. Stability and reactivity**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Reactive with oxidizing agents, acids

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Hygroscopic. Incompatible with KMnO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub>, BrF<sub>3</sub>, and BrCl<sub>3</sub>. May react violently with BrF<sub>3</sub>

**Special Remarks on Corrosivity:** Not available

**Polymerization:** Will not occur.

### **11. Toxicological information**

**Routes of Entry:** Inhalation. Ingestion

**Toxicity to Animals:** Acute oral toxicity (LD<sub>50</sub>): 1500 mg/kg [Mouse].

**Chronic Effects on Humans:** May cause damage to the following organs: blood, cardiovascular system.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation

**Special Remarks on Toxicity to Animals:** Not available

**Special Remarks on Chronic Effects on Humans:** May affect genetic material. Passes through the placental barrier in animal

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: May cause skin irritation Eye: Dust may cause eye irritation. Inhalation: Dust may cause respiratory tract irritation. Low hazard for usual industrial handling Ingestion: May affect behaviour (coma, change in motor activity, listlessness, vertigo, mental confusion, paresthesias, general weakness, flaccid paralysis), metabolism, blood (change in clotting factor, electrolytic imbalance), cardiovascular (hypotension, circulatory disturbances, cardiac arrhythmias, heart block), and respiratory, gastrointestinal (irritation of GI tract, nausea, vomiting, diarrhoea, abdominal discomfort, purging), and urinary (impairment of renal function) systems. Acute potassium intoxication by mouth is rare because large single doses usually induce vomiting, and because in the absence of pre-existing kidney damage potassium is rapidly excreted. Maximal nontoxic oral dose of KCl in man varies



from 0.2g to 1 g of potassium/kg/day depending upon efficiency of individual excretory mechanism; lower doses sometimes cause impairment of renal function as shown by reduced insulin, and urea clearance. Chronic Potential Health Effects: May affect blood and cardiovascular system.

## **12. Ecological information**

**Ecotoxicity:** Not available

**BOD5 and COD:** Not available

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available

## **13. Disposal considerations**

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## **14. Transport information**

**DOT Classification:** Not a DOT controlled material

**Identification:** : Not applicable

**Special Provisions for Transport:** Not applicable

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