



LABORATORY CHEMICALS AND CONSUMABLES

MATERIAL SAFETY DATA SHEET

POTASSIUM IODATE

1. Chemical Product and Company information.

Product name: Potassium Iodate

Contact Information:

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

2. Hazard Identification

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.

3. Composition / information on ingredients

CAS #: 7758-05-6

Synonym:

Chemical Name: Iodic Acid, potassium salt

Chemical Formula: KIO₃

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: In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

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



Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available

5. Fire-fighting measures

Flammability of the Product: Non-flammable.

Fire Hazards in Presence of Various Substances: combustible material

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 metals.

Fire Fighting Media and Instructions: Not applicable

Special Remarks on Fire Hazards: It is an oxidizer. It can start a fire in presence of combustible or flammable materials. When heated to decomposition it emits very toxic fumes.

Special Remarks on Explosion Hazards: Potentially explosive reaction with charcoal + ozone; metals; arsenic; carbon; phosphorus; sulphur; alkali metal hydrides; alkaline earth metal hydrides; antimony sulphide; arsenic sulphide; tin sulphide; metal cyanides; metal thiocyanates; manganese dioxide.

6. Accidental release measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

7. Handling and storage

Precautions: Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

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: Splash goggles. 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.



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| <p><u>9. Physical and chemical properties</u></p> <p>Physical state and appearance: Solid (Crystals solid, Crystalline powder)</p> <p>Odour: Odourless</p> <p>Taste: Not available</p> <p>Colour: Not available</p> <p>Boiling Point: Not available</p> <p>Melting Point: Decomposition temperature: 560°C</p> <p>Critical Temperature: Not available</p> <p>Specific Gravity: Not available</p> <p>Vapour Density: Not available</p> <p>Volatility: Not available</p> | <p>Odour Threshold: Not available</p> <p>Ionicity (in Water): Not available.</p> <p>Dispersion Properties: See solubility in water</p> <p>Solubility: Soluble in cold water, hot water. Solubility in water @ 0 C: 4.74/100 ml Solubility in water @ 25 C: 9.16 g/100 ml Solubility in water at 100 C: 32.3 g/100 ml Insoluble in alcohol, nitric acid. Soluble in potassium iodide, dilute sulphuric acid.</p> |
| <p><u>10. Stability and reactivity</u></p> <p>Stability: The product is stable.</p> <p>Instability Temperature: Not available.</p> <p>Conditions of Instability: Incompatible materials, ignition sources, dust generation</p> <p>Incompatibility with various substances: Reactive with reducing agents, combustible materials, organic materials, metals</p> <p>Corrosivity: Non-corrosive in presence of glass</p> <p>Special Remarks on Reactivity: It can react vigorously with reducing materials. Violent reaction with organic matter. Incompatible with charcoal + ozone; metals; arsenic; carbon; phosphorus; sulphur; alkali metal hydrides; alkaline earth metal hydrides; sulphides (antimony sulphide; arsenic sulphide; copper sulphide; tin sulphide); metal cyanides; metal thiocyanates; manganese dioxide, hydrogen peroxide. Strong oxidizing characteristics appear when mixed with acid solutions.</p> <p>Special Remarks on Corrosivity: Not available</p> <p>Polymerization: Will not occur.</p> | |
| <p><u>11. Toxicological information</u></p> <p>Routes of Entry: Inhalation. Ingestion</p> <p>Toxicity to Animals: LD50: Not available. LC50: Not available</p> <p>Chronic Effects on Humans: May cause damage to the following organs: kidneys, liver, central nervous system (CNS).</p> <p>Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation</p> <p>Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose: LDL [Mouse] - Route - Oral; Dose:</p> | |

531 mg/kg LDL [Dog] - Route - Oral; Dose: 200 mg/kg Lethal Dose/Conc 50% Kill: LD50 [Mouse] - Route - Intraperitoneal; Dose: 136 mg/kg

Special Remarks on Chronic Effects on Humans: Not available

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause severe irritation and possible burns. Eyes: May cause eye irritation. May cause conjunctivitis. May cause corneal pacification. Inhalation: May cause respiratory tract irritation, pulmonary oedema, asphyxia, chemical pneumonitis, upper airway obstruction caused by oedema. Ingestion: May cause gastrointestinal tract irritation with possible burns. May cause nausea, vomiting, hyper motility, and diarrhoea (possibly with blood). May affect behaviour/Central Nervous system (excitement, convulsions), respiration. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the liver (necrotic lesions, and kidneys (renal failure, hemoglobinuria, necrotic lesions), metabolism (anorexia), and the blood (anaemia)

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: CLASS 5.1: Oxidizing material

Identification: : Oxidizing solid, n.o.s. (Potassium iodate) UNNA: 1479 PG: III

Special Provisions for Transport: Not available

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Radchem CC. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Radchem CC has been advised of the possibility of such damages.

