

MATERIAL SAFETY DATA SHEET

Potassium Iodide

SECTION 1 : PRODUCT AND COMPANY INFORMATION

Product Name : Potassium Iodide

Company Name : M/S Proto Chemical Industries.
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Maharashtra. India.

Telephone : +91 -22-28909933/44/65778381

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Synonym : Potassium Iodide

Chemical formula : KI

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS #	E.C. #	Weight%
Potassium Iodide	7681-11-0	231-659-1	100 %

Toxicological Data on Ingredients: Potassium Iodide LD50: Not available. LC50: Not available. Lowest Published Lethal Dose: LDL [Mouse] - Route: Oral; Dose: 1862 mg/kg LDL [Rabbit] - Route: Oral; Dose: 916 mg/kg

SECTION 3 : HAZARDOUS IDENTIFICATION

Potential acute health effect :
Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health effects :
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. The substance may be toxic to thyroid. Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 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 if irritation occurs.

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 applicable.

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.

SECTION 5 : FIRE FIGHTING MEASURES

Flammability of the Product:.	:	Non-flammable
Flash Points	:	Not applicable
Flammable Limits	:	Not applicable
Products of Combustion:	:	Some hazardous decomposition products are: Hydrogen Iodide, Oxides of potassium , iodine
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.
Fire Fighting Media and Instructions:	:	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards:	:	Not available
Special Remarks on Explosion Hazards:	:	Potassium iodide + Fluorine Perchlorate will explode on contact.

SECTION 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.

SECTION 7 : HANDLING AND STORAGE**Precautions:**

Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, acids, moisture.

Storage:

Moisture Sensitive. Light Sensitive. Air Sensitive Keep container tightly closed in light-resistant containers. Keep container in a cool, well-ventilated area.

SECTION 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.

Exposure Limits:

Not Available

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance : Solid (Deliquescent crystals solid.)

Odour	: Odourless.		
Taste	: Bitter, saline (strong)	Specific Gravity	: 3.1(Water=1)
Molecular Weight	: 166 g/mol	Vapor Pressure	: Not available
Colour	: White	Vapor Density	: Not available
pH (1% soln./water)	: Not available	Volatility	: Not available
Boiling Point	: 1330°C(2426°F)	Odor Threshold	: Not available
Melting Point	: 681°C (1257.8°F)	Water/Oil Dist. Coeff	: Not available
Critical Temperature	: Not available	Ionicity (in water)	: Not available
Dispersion Properties	: See solubility in water, methanol, acetone		

Solubility :

Easily soluble in cold water, hot water. Soluble in methanol. Partially soluble in acetone.

SECTION 10 : STABILITY AND REACTIVITY

Stability	: The product is stable
Instability Temperature	: Not available
Conditions of Instability :	: Light, moisture, incompatible materials. It is under ordinary conditions of use and storage. On long exposure to air, it becomes yellow due to release of iodine.
Incompatibility with various substances :	: Reactive with reducing agents, reducing agents, organic materials, metals , acids.
Corrosivity	: Corrosive in presence of steel .of aluminium , of zinc .Non-corrosive in presence of glass, of copper, of stainless steel (304), of stainless steel (316).
Special Remarks on Reactivity	: Moisture Sensitive. Light Sensitive. Air Sensitive. Air causes decomposition to iodine. Reacts violently with strong oxidizers, bromotrifluorides, chlorotrifluorides, fluorine perchlorate, metallic salts. Attacks metals in moist environments. Also incompatible with salts of alkaloids, chloral hydrate, calomel (mercurous chloride), potassium chlorate, tartaric and other acids, oxidants, diazonium salts, charcoal, ozone, strong reducers, alkali metals, metals (brass, aluminum magnesium, zinc, cadmium, copper, tin, nickel, steel), metallic salts, organic materials, light.
Special Remarks on Corrosivity	: Incompatible with water, producing a corrosive. Corrosive in all concentrations to most metals, except stainless steel, titanium and tantalum.
Polymerization	: Will not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Routes of Entry :

Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. May cause damage to the following organs: thyroid.

Other Toxic Effects on Humans:

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

Special Remarks on Toxicity to Animals :

Lowest Published Lethal Dose: LDL [Mouse] - Route: Oral; Dose: 1862 mg/kg LDL[Rabbit] - Route: Oral; Dose: 916 mg/kg

Special remarks on chronic effects on Humans :

Can cause adverse reproductive effects and birth defects based on animal data. May affect genetic material based on animal data.

Special Remarks on other Toxic Effects on Humans :

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause Respiratory tract and mucous membrane irritation and a productive cough. May cause pulmonary edema and inflammation of the tonsils. Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting and diarrhea. May affect behavior (somnolence, muscle weakness), respiration (dyspnea). Serum-sickness type of hypersensitivity such as fever, arthralgia, lymph node enlargement, and eosinophilia may appear. Thrombotic thrombocytopenic purpura, and fatal periarteritis nodosa attributed to hypersensitivity to iodide has been described. Chronic Potential Health Effects: Can lead to iodism characterized by salivation, nasal discharge, sneezing, conjunctivitis, fever, headache, laryngitis, bronchitis, stomatitis, parotitis, anemia, and skin rashes. Chronic ingestion may also affect metabolism (anorexia), and thyroid gland (hypothyroidism, goiter). Furthermore, chronic ingestion of iodides (in animals) during pregnancy has resulted in fetal deaths, severe goiter and cretinoid appearance of the newborn.

SECTION 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.

SECTION 13 : DISPOSAL CONSIDERATIONS**Waste Disposal:**

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

SECTION 14 : TRANSPORT INFORMATION**DOT Classification:**

Not a DOT controlled material (United States).

Identification:

Not applicable.

Special Provisions for Transport:

Not applicable.

SECTION 15 : REGULATORY INFORMATION

Federal and State Regulations:

TSCA 8(b) inventory: Potassium Iodide.

Other Regulations:

EINECS: This product is on the European Inventory of Existing Commercial Chemical substances..

Other Classifications:

CLASS D-2A: Material causing other toxic effects(VERY TOXIC).

DSCL (EEC):

Not available Not applicable.

Health Hazard	: 1	Reactivity	: 0
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Fire Hazard	: 0	Personal Protection	: E
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National Fire Protection Association (U.S.A.):

Health	: 1	Reactivity	: 0
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Flammability	: 0	Specific hazard	:
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Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

SECTION 16 : ADDITIONAL INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PROTO CHEMICAL INDUSTRIES shall not be held liable for any damage resulting from handling or from contact with the above product.