

# POTASSIUM IODIDE

H.M.S. Beagle  
180 English Landing Drive  
Suites 110-120  
Parkville, MO 64152  
816-587-9998  
www.hms-beagle.com

## 1. Product Identification

**Synonyms:** Potide; hydriodic acid, potassium salt; Iodic acid, potassium salt

**CAS No.:** 7681-11-0

**Molecular Weight:** 166.0

**Chemical Formula:** KI

**Product Codes:** CHEM-070 and others

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Potassium Iodide	7681-11-0	90 - 100%	Yes

## 3. Hazards Identification

### Emergency Overview

**CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.**

### SAF-T-DATA<sup>(tm)</sup> Ratings

Health Rating: 2 - Moderate (Life)

Flammability Rating: 0 - None

Reactivity Rating: 2 - Moderate

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

### Potential Health Effects

#### Inhalation:

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

#### Ingestion:

Large oral doses may cause irritation to the gastrointestinal tract.

#### Skin Contact:

May cause irritation with redness and pain.

#### Eye Contact:

May cause irritation, redness and pain.

**Chronic Exposure:**

Chronic ingestion of iodides may produce "iodism," which may be manifested by skin rash, running nose, headache and irritation of mucous membranes. Weakness, anemia, loss of weight, and general depression may also occur.

**Aggravation of Pre-existing Conditions:**

No information found.

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

## 7. Handling and Storage

Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Prolonged storage is not recommended because of possible degradation problems, including yellowing of the potassium iodide product. Always inspect the potassium iodide's color and overall quality before use. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

-ACGIH (TWA) for Iodides:

0.01 ppm for inhalable fraction and vapor.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Gloves and lab coat, apron or coveralls.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

### **Appearance:**

White crystals.

### **Odor:**

Odorless.

### **Solubility:**

140 grams/100 gm in water.

### **Density:**

3.1

### **pH:**

7-9

### **% Volatiles by volume @ 21°C (70°F):**

0

### **Boiling Point:**

1330°C (2426°F)

### **Melting Point:**

680°C (1256°F)

### **Vapor Density (Air=1):**

No information found.

### **Vapor Pressure (mm Hg):**

1 @ 745°C (1373°F)

### **Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

### Stability:

Stable under ordinary conditions of use and storage. On long exposure to air becomes yellow due to release of iodine.

### Hazardous Decomposition Products:

Oxides of the contained metal and halogen, possibly also free, or ionic halogen.

### Hazardous Polymerization:

Will not occur.

### Incompatibilities:

Diazonium salts; diisopropyl peroxydicarbonate; oxidants; bromine and chlorine trifluorides; fluorine perchlorate; calomel (mercurous chloride); potassium chlorate; metallic salts; tartaric and other acids.

### Conditions to Avoid:

Air, moisture, light and incompatibles.

## 11. Toxicological Information

Investigated as a mutagen, reproductive effector.

Ingredient	Cancer Lists		IARC Category
	NTP Carcinogen		
	Known	Anticipated	
Potassium Iodide (7681-11-0)	No	No	None

## 12. Ecological Information

### Environmental Fate:

No information found.

### Environmental Toxicity:

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

Ingredient	Chemical Inventory Status - Part 1			
	TSCA	EC	Japan	Australia
Potassium Iodide (7681-11-0)	Yes	Yes	Yes	Yes
Ingredient	Chemical Inventory Status - Part 2			
	Canada			
	Korea DSL	NDSL Phil.		
Potassium Iodide (7681-11-0)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

SARA 302 SARA 313

Ingredient	RQ	TPQ	List	Chemical Catg.
Potassium Iodide (7681-11-0)	No	No	No	No

Federal, State & International Regulations - Part 2

RCRA TSCA

Ingredient	CERCLA	261.33	8(d)
Potassium Iodide (7681-11-0)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactivity: No (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 0

**Label Hazard Warning:**

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Product Use:**

Laboratory Reagent and Consumer Hobby

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

H.M.S. Beagle and/or Rainbow House Alchemists, LLC, provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. NEITHER H.M.S. BEAGLE NOR RAINBOW HOUSE ALCHEMISTS, LLC MAKE NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, H.M.S. BEAGLE AND RAINBOW HOUSE ALCHEMISTS, LLC, WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

\*\*\*\*\*

**Prepared by:** John Farrell Kuhns  
Phone Number: 816-587-9998 (U.S.A.)