

# Safety Data Sheet

Revision Date: 3/8/2019

## Section 1: Chemical Identification

### 1.1 Chemical Identification

**Product Name:** Potassium Iodide

**Alternative Name:**

**Catalog Number:** P-440

### 1.2 Relevant Uses and Uses Advised Against

**Recommended use:** This product is not for use in humans. It is for research purposes only.

### 1.3 Supplier Contact Information

**Distributed by:** Gold Biotechnology, Inc.  
1328 Ashby Rd.

St. Louis, MO 63132

**Phone:** (314) 890-8778

**Fax:** (314) 890-0503

**Email:** [contactgoldbio86@goldbio.com](mailto:contactgoldbio86@goldbio.com)

### 1.4 Emergency Contact Information

**Emergency Phone:** (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

## Section 2: Hazardous Information

### 2.1 GHS Classification

Specific Target Organ Toxicity, Repeated exposure (Category 1)

### 2.2 GHS Label Elements, Including Precautionary statements



**DANGER!**

### 2.3 Hazard Statements

**H302:** Harmful if swallowed

**H315:** Causes skin irritation

**H319:** Causes serious eye irritation

**H372:** Causes damage to organs through prolonged or repeated exposure

### 2.4 Precautionary Statements

**P305+351+338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

**Gold Biotechnology**

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- P264:** Wash skin thoroughly after handling  
**p270:** Do not eat, drink or smoke when using this product  
**P305+351+338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
**P314:** Get Medical advice/attention if you feel unwell  
**P501:** Dispose of contents/container to an approved waste disposal plant

## **2.5 OSHA Hazards**

Target Organ Effect, Harmful by ingestion, Irritant, Teratogen

## **2.6 Target Organs**

Thyroid

## **2.8 HMIS Classification**

Health Hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical Hazards:	0

## **2.9 NFPA Rating**

Health Hazard:	2
Fire:	0
Reactivity Hazard:	0

# **Section 3: Composition/Information on Ingredients**

## **3.1 Composition**

<b>Identity:</b>	Potassium Iodide
<b>IUPAC:</b>	potassium;iodide
<b>Synonyms:</b>	
<b>CAS Number:</b>	7681-11-0
<b>Molecular Formula:</b>	KI
<b>Molecular Weight:</b>	166.00 g/mol

# **Section 4: First Aid Measures**

## **4.1 Detailed First Aid Measures**

<b>Inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Skin:</b>	Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.
<b>Eye:</b>	Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.
<b>Ingestion:</b>	Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.

## **4.2 Most Important Symptoms And Effects, Either Acute Or Delayed**

The most important known symptoms and effects are described in the labeling (see section 2). And /or in section 11.

#### **4.3 Indication of immediate medical attention and special treatment needed**

Not available

## **Section 5: Fire Fighting Measures**

### **5.1 Conditions of flammability:**

Not flammable or combustible.

### **5.2 Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.3 Specific hazards arising from the chemical**

During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Hydrogen Iodide, Potassium Oxides.

### **5.4 Specific protective actions for fire-fighters:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## **Section 6: Accidental Release Measures**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

### **6.2 Environmental precautions:**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up:**

Soak up with absorbent material, discard.

## **Section 7: Handling and Storage**

### **7.1 Precautions for safe handling:**

Always wear personal protective equipment (PPE, see section 8).

### **7.2 Conditions for safe storage, including and incompatibilities:**

Keep container tightly closed.

Store desiccated at room temperature.

## **Section 8: Exposure Controls / Personal Protection**

### **8.1 Control Parameters:**

Contains no substances with occupational exposure limit values.

### **8.2: Appropriate engineering controls:**

Contains no substances with occupational exposure limit values.

### **8.3 Personal Protective Equipment (PPE):**

**Eye/Face Protection:** Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique - without touching outer surface of glove - to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Other Protective Clothing or Equipment:** Wear appropriate protective clothing to prevent exposure.

#### **Control Parameters - Workplace**

<b><u>Component:</u></b>	<b><u>CAS-No:</u></b>	<b><u>Value:</u></b>
Potassium Iodide	7681-11-0	TWA

#### **Control**

<b><u>Parameters:</u></b>	<b><u>Basis:</u></b>
0.01 ppm	USA. ACGIH Threshold Limit Values

Remarks: Upper Respiratory Tract irritation; Hypothyroidism; Not classifiable as a human carcinogen; Varies

## **Section 9: Physical and Chemical Properties**

### **9.1 General chemical and physical properties**

<b>Appearance:</b>	White Solid
<b>Odor:</b>	Odourless
<b>Odor Threshold:</b>	Not Available
<b>pH:</b>	ca. 6.9 at 50 g/L at 20°C
<b>Melting Point:</b>	681°C
<b>Freezing Point:</b>	681°C
<b>Boiling Point/Range:</b>	1330°C
<b>Flash Point:</b>	Does Not Flash
<b>Evaporation Rate:</b>	Not Available
<b>Lower Explosion Limit:</b>	Not Available
<b>Upper Explosion Limit:</b>	Not Available

<b>Vapor Pressure:</b>	ca. 1 hPa at 745°C
<b>Vapor Density:</b>	Not Available
<b>Relative Density:</b>	3.23 g/cm <sup>3</sup> at 25°C
<b>Solubility:</b>	ca. 1430 g/L at 20 °C
<b>Partition Coefficient n-octanol/water:</b>	Not applicable for inorganic substances
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Decomposition Temperature:</b>	Not Available
<b>Viscosity:</b>	Not Available

## **Section 10: Stability and Reactivity Data**

### **10.1 Reactivity:**

Not available

### **10.2 Chemical Stability:**

May decompose on exposure to air and moisture. Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions:**

Not available.

### **10.4 Conditions to avoid:**

Tin/Tin Oxides, Incompatible materials.

### **10.5 Incompatible materials:**

Strong reducing agents, Nickel, Strong acids, and its alloys, Steel (all types and surface treatments), Aluminum, Alkali metals, Brass, Magnesium, Zinc, Cadmium, Copper.

### **10.6 Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Hydrogen iodide, Potassium oxides.

## **Section 11: Toxicological Information**

### **11.1 Toxicological effects**

#### **Acute toxicity:**

Potassium Iodide Skin: LD<sub>50</sub> (Rat) - > 2000 mg/Kg

#### **Skin corrosion/irritation:**

Not available.

#### **Respiratory or skin sensitization:**

Not available.

**Germ cell mutagenicity:**

Ames test - Salmonella typhimurium - Result: negative  
(Lit)

**Carcinogenicity:**

- IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
- NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
- OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:**

Exposure to excessive amounts of iodine during pregnancy is capable of producing fetal hypothyroidism.  
Iodine- containing drugs have been associated with fetal goiter.

**STOT-single exposure:**

Ingestion (Thyroid) Causes damage to organs through prolonged or repeated exposure

**STOT-repeated exposure:**

Not available.

**Aspiration hazard:**

Not available.

**Likely routes of exposure:**

Respiratory organs, mouth, skin, and eyes.

**Symptoms of exposure:**

After absorption of toxic quantities: drop in blood pressure, paralysis symptoms, agitation, Vomiting /The following applies to iodides in general: Sensitisation possible in predisposed persons. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information:**

RTECS: TT2975000

Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goiter have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration.

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## **Section 12: Ecological Information**

### **12.1 Toxicity:**

Toxicity to fish:

LC<sub>50</sub> (*Oncorhynchus mykiss*) = 2190 mg/L – 96 h

LC<sub>50</sub> (*Danio rerio*) > 100 mg/L – 96h

Toxicity to daphnia:

EC50 (Daphnia) = 2.7 mg/L – 24 h

### **12.2 Persistence and degradability:**

Not available.

### **12.3 Bioaccumulative potential:**

Not available.

### **12.4 Mobility in soil:**

Not available.

### **12.5 Other adverse effects:**

None.

## **Section 13 Disposal Considerations**

Dispose of product in accordance with local rules and regulations.

## **Section 14: Transport Information**

### **14.1 US Department of Transportation (DOT)**

This material is considered to be non-hazardous for transport.

### **14.2 International Maritime Dangerous Goods (IMDG):**

This material is considered to be non-hazardous for transport.

### **14.2 International Air Transportation Association (IATA)**

This material is considered to be non-hazardous for transport.

## **Section 15: Regulatory Information**

### **SARA 302 Components:**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components:**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:**

Chronic Health Hazard

**Massachusetts Right To Know Components:**

Potassium Iodide

CAS - No.

7681-11-0

**Pennsylvania Right To Know Components:**

Potassium Iodide

CAS - No.

7681-11-0

**New Jersey Right To Know Components:**

Potassium Iodide

CAS - No.

7681-11-0

**California Prop. 65 Components:**

This product does not contain any chemical known to the State of California to cause cancer, birth, or any other reproductive defects.

## **Section 16: Other Information**

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

**Preparation Information**

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