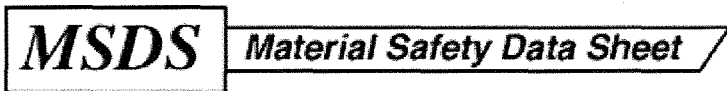


MSDS Number: **P5895** \* \* \* \* \* *Effective Date: 11/02/01* \* \* \* \* \* *Supersedes: 11/17/99*



From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-850-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# POTASSIUM IODATE

## 1. Product Identification

**Synonyms:** Iodic acid, potassium salt  
**CAS No.:** 7758-05-6  
**Molecular Weight:** 214.00  
**Chemical Formula:** KIO3  
**Product Codes:**  
J.T. Baker: 3156  
Mallinckrodt: 1091, 1094, 4896

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Potassium Iodate	7758-05-6	100%	Yes

## 3. Hazards Identification

### Emergency Overview

**DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY AFFECT CENTRAL NERVOUS SYSTEM, BLOOD, AND KIDNEYS.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

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Health Rating: 1 - Slight  
Flammability Rating: 0 - None  
Reactivity Rating: 3 - Severe (Oxidizer)  
Contact Rating: 2 - Moderate  
Lab Protective Equip: GOGGLES; LAB COAT  
Storage Color Code: Yellow (Reactive)

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#### **Potential Health Effects**

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**Inhalation:**

May irritate the respiratory tract, with symptoms of coughing and possible shortness of breath.

**Ingestion:**

May cause gastrointestinal upset with symptoms of abdominal pain, vomiting, and diarrhea. Animal experiments suggest a potential for kidney and blood cell damage, similar to that of the bromates and chlorates.

**Skin Contact:**

Possible irritation or reddening of moist skin on prolonged contact.

**Eye Contact:**

No adverse effects expected but dust may cause mechanical irritation.

**Chronic Exposure:**

Repeated ingestions may cause kidney dysfunction or failure and blood conditions such as hemolysis. Central nervous system may be affected.

**Aggravation of Pre-existing Conditions:**

Persons with impaired liver or kidney function may be more susceptible to the effects of this substance.

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## **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:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

Wash thoroughly with running water. Get medical advice if irritation develops.

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## **5. Fire Fighting Measures**

**Fire:**

Not combustible but enhances the combustion of other substances. Strong oxidizing agent, can release gaseous oxygen when heated.

**Explosion:**

May explode when exposed to mechanical shock or friction or can cause explosions with combustible or flammable materials or powdered metals.

**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. Water spray may be used to keep fire exposed containers cool.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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## 7. Handling and Storage

Store in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatible substances. Protect container from physical damage. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge. 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.

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## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

None established.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. 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:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Eye Protection:**

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

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## 9. Physical and Chemical Properties

### **Appearance:**

White crystalline powder.

**Odor:**

Odorless.

**Solubility:**

32 g in 100cc @100C

**Density:**

3.89

**pH:**

No information found.

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

0

**Boiling Point:**

Not applicable.

**Melting Point:**

560C (1040F) (partial decomposition)

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

No information found.

**Vapor Pressure (mm Hg):**

No information found.

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

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Strong oxidizing characteristics appear when mixed with acid solutions.

**Hazardous Decomposition Products:**

Burning may produce toxic iodine vapors.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Reacts violently with combustible and reducing materials; aluminum, organic compounds, carbon, hydrogen peroxide, sulfides.

**Conditions to Avoid:**

Heat, shock, friction, incompatibles.

## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Potassium Iodate (7758-05-6)	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 facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. 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

**Domestic (Land, D.O.T.)**

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**Proper Shipping Name:** OXIDIZING SOLID, N.O.S. (POTASSIUM IODATE)  
**Hazard Class:** 5.1  
**UN/NA:** UN1479  
**Packing Group:** II  
**Information reported for product/size:** 2.5KG

**International (Water, I.M.O.)**

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**Proper Shipping Name:** OXIDIZING SOLID, N.O.S. (POTASSIUM IODATE)  
**Hazard Class:** 5.1  
**UN/NA:** UN1479  
**Packing Group:** II  
**Information reported for product/size:** 2.5KG

### 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Potassium Iodate (7758-05-6)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	DSL	Canada-- NDSL	Phil.
Potassium Iodate (7758-05-6)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302- RQ	TPQ	-SARA 313- List	Chemical Catg.
Potassium Iodate (7758-05-6)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8 (d)
Potassium Iodate (7758-05-6)			



Phone Number: (314) 654-1600 (U.S.A.)