

**AERCHEM INC.**  
**320 North Walnut**  
**Bloomington, IN 47408**

Telephone: 812.334.9996

Fax: 812.334.1960

Emergency: 800.424.9300

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**SECTION 1: IDENTIFICATION**

**Effective Date:** April 23, 1996  
**Product Name:** IODINE  
**Chemical Formula:** I<sub>2</sub>  
**CAS No.:** 7553-56-2

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**SECTION 2: HAZARDOUS INGREDIENTS:**

inhalation: Vapor exposures via inhalation may cause irritation to the nasal and respiratory tract, causing burning sensations to the mucosal, tracheal, and pulmonary tissues. High exposures may lead to lung disease. Symptoms are rhinitis, coughing, pulmonary edema, pharyngitis, and cachexia

skin/eyes: Dermatitis is possible from vapor exposure to iodine. Symptoms are irritation of mucous membranes and eyes. Mahogany coloration to skin.

ingestion: Can induce lethargy, irritation of the mouth and nasal passages, labored breathing and bloody urine. May also cause gastrointestinal upset with vomiting and diarrhea, shock corrosive gastritis asphyxiation from constriction of the esophagus or chemical pneumonia. High dose ingestion may be fatal. Symptoms are GI irritation, vomiting, burning, and staining of mouth, necrosis.

chronic Long term high level exposure will cause reversible reduction in thyroid function

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**SECTION 3: PHYSICAL DATA**

Appearance and Odor:	bluish-black flakes, metallic luster, typical odor
Boiling point:(760 mmHg)	363°F/184.45°C
Vapor Pressure (mmHg):	.31 mmHg @ 25°C
Specific Gravity (Water = 1):	4.98
Solubility in water:(by weight)	0.293 g/L
Freezing Point:	113°C
Vapor Density:	g/L 11.27
pH	saturated - 5.40

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**SECTION 4: FIRE AND EXPLOSION DATA**

Flash point:	n/a
Flammable limit:	not applicable
Extinguishing Media:	use extinguishing media as appropriate for surrounding fire conditions
Fire Fighting Procedures:	Flush fire with water. Wear OSHA/MSHA approved self-contained breathing apparatus in pressure/ demand mode to avoid exposure to iodine vapors
Unusual Fire and Explosion Hazards:	None. May ignite some combustible materials on contact

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**SECTION 5: REACTIVITY DATA**

Stable <u>    </u> <u>  X  </u> <u>    </u>	Unstable <u>    </u> <u>    </u> <u>    </u>
<b>Conditions to Avoid:</b> sunlight.	Avoid storing near sources of heat or direct sunlight. Avoid storing in poorly ventilated areas. Stored containers should remain sealed.
<b>Incompatibilities:</b>	finely divided materials, phosphorous, organic solvents, rubber goods and plastics.
<b>Hazardous Decomposition or byproducts:</b>	will not occur

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**Hazardous Polymerization:**

will not occur

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**SECTION 6: HEALTH HAZARD DATA**

**Max. safe concentration up to one hour (inhalation):**

1.0 ppm

**Prolonged exposure:**

0.1 ppm

**Ingestion LD50 adult:**

2-4 gram

**ACGIH TLV:**

0.1 mg/m<sup>3</sup>

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**SECTION 7: SPILLAGE AND DISPOSAL PROCEDURES**

**Spillage:** Evacuate area, remove ignitable substances, and provide maximum ventilation. Unprotected persons should move up wind of spill. Only personnel equipped with OSHA/MSHA approved, self-contained breathing apparatus or full face piece airline respirators with auxiliary SCBAs operated in the pressure/demand mode should be permitted in area. Dike area with soil. Large spills should be placed in closed containers for recovery or disposal. If dilution with water has occurred, treat with sulfite containing neutralizing chemicals and clean up as spill residue on absorbents. For small spills and large spill residues, apply a solution of sodium thiosulfite, sodium bisulfite, or sodium sulfite, then recover on absorbents, such as vermiculite, and place in closed container for disposal. After all visible traces of spilled materials have been removed, thoroughly flush area with large amounts of water. remove respiratory, skin and eye protection only after vapors have been cleared from area.

**Disposal:** Should be in an approved waste facility. Care must be taken when using or disposing of material in accordance with Clean Air Act, the Resource Conservation and Recovery Act as well as any other relevant federal, state or local laws and/or regulations regarding disposal.

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**SECTION 8: FIRST AID PROCEDURES**

**Eyes:** Wash eyes with water for at least 15 minutes.  
**Skin:** Rinse skin with 5% solution of sodium thiosulfate. If not available, use rubbing alcohol and/or any common cooking oil. If irritation occurs, consult physician.  
**Inhalation:** Remove to uncontaminated area. Give artificial respiration if not breathing.  
**Ingestion:** If conscious, drink large quantities of mild and any common cooking vegetable oil if available. Do not induce vomiting. Take to hospital or physician. If vomiting occurs, administer additional water. If unconscious, take to hospital. Do not attempt to give anything by mouth to unconscious victim.

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**SECTION 9: PRECAUTION TO BE TAKEN IN HANDLING AND STORING**

Store in cool, well ventilated place away from direct sunlight. Keep tightly closed. Use caution when handling drums to avoid puncturing drums.

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**SECTION 10: SPECIAL PROTECTION INFORMATION**

**Ventilation:** All areas using iodine should be well ventilated and maintain an acceptable level of exposure (0.1 ppm)  
**Eye Protection:** chemical goggles  
**Protective Gloves:** natural or synthetic rubber gloves  
**Respiratory Protection:** wear OSHA/MSHA approved full or half face pieces (with chemical goggles) with respiratory equipment for routine work purposed when air concentrations exceed the permissible exposure limit. The respirator use limitation made by OSHA/MSHA or the manufacturer must be observed. Respiratory protection programs meet the requirements of 29CFR 1910.134  
**Other Protective Gear:** boots, aprons, chemical suits to prevent skin contact

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**SECTION 11: TRANSPORT INFORMATION**

**DOT classification:** UN3288, toxic solid, inorganic n.o.s., class 6.1, packing group II  
**DOT pictograms:** stow away from foodstuffs - 6 or toxic - 6