



## Safety Data Sheet

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Iodine, ACS Reagent Grade

**Product Number:** 1-21750

**Other Identifying Product Numbers:** 1-21750-1, 1-21750-3, 1-21750-5, 1-21750-7

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Reagents Inc.

**Address:** 4746 Sweden Road  
Charlotte, NC 28224 USA

**Telephone:** 800-732-8484

#### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

## Safety Data Sheet

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard Statement	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264, P270, P301+P312, P330, P501
Acute Toxicity - Dermal	Category 4	H312	P280, P302+P352, P312, P321, P362, P501
Acute Toxicity - Inhalation	Category 4	H332	P261, P271, P304+P340, P312
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Skin Sensitizer	Category 1	H317	P261, P272, P280, P302+P352, P332+P313, P321, P363, P501
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Hazardous to the Aquatic Environment (Acute)	Category 1	H400	P273, P501
Hazardous to the Aquatic Environment (Chronic)	Category 1	H400	P273, P501

#### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

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### Precautionary Statements:

Precautionary Number	Precautionary Statement
P260	Do not breathe dust, fumes or mist.
P261	Avoid breathing dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P312	Call a POISON CENTER or physician if you feel unwell.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical attention.
P362	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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### SECTION 3: Composition / Information on Ingredients

#### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Iodine	I <sub>2</sub>	253.80 g/mol	7553-56-2	100.00%

### SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

#### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

#### 4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Does not burn. Use extinguishing media appropriate for surrounding fire.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

#### 5.3. Special Protective Equipment for Firefighters

Wear protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

### SECTION 6: Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

#### 6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.



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### SECTION 7: Handling and Storage

#### 7.1. Precautions for Safe Handling and Storage Conditions

Protect from freezing and physical damage.

### SECTION 8: Exposure Controls / Personal Protection

#### 8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Iodine (7553-56-2)	TLV-STEL	USA	0.1 ppm STEL (aerosol and vapor)	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Iodine (7553-56-2)	TLV-TWA	USA	0.01 ppm TWA (inhalable fraction and vapor)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Iodine (7553-56-2)	PEL-Ceiling	USA	0.1 ppm Ceiling 1 mg/m <sup>3</sup> Ceiling	U.S. - OSHA - Final PELs - Ceiling Limits

#### 8.2. Exposure Controls

**Engineering Controls:** Use only outdoors or in a well-ventilated area.

**Respiratory Protection:** No specific controls are needed. Normal room ventilation is adequate

**Skin Protection:** Wear protective gloves and eye protection.

**Eye Protection:** Wear protective gloves and eye protection.

#### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection.

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### SECTION 9: Physical and Chemical Properties

#### 9.1. Basic Physical and Chemical Properties

**Appearance:** Violet-black solid

**Physical State:** Solid

**Odor:** Characteristic, irritating

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** 114°C

**Initial Boiling Point /Range:** 184°C - 184°C

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** 8.75

**Relative Density:** 4.93

**Solubility:** 30 G/L at 20°C

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

#### 10.2. Possibility of Hazardous Reactions

Data not available.

#### 10.3. Conditions to Avoid and Incompatible Materials

Protect from physical damage.

#### 10.4. Hazardous Decomposition Products

May emit irritating fumes when heated to decomposition.



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## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Dermal Exposure:

Harmful in contact with skin. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Specific treatment (Wash areas of contact with water). Take off contaminated clothing and wash it before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Inhalation Exposure:

Harmful if inhaled. Avoid breathing dust, fumes or mist. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

#### Acute Toxicity - Other Information:

Data not available.

#### Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

May cause an allergic skin reaction. Avoid breathing dust, fumes or mist. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.



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**Reproductive Toxicity:**

Not applicable.

**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

**Specific Target Organ Toxicity from Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

### SECTION 12: Ecological Information

**12.1. Ecotoxicity**

Very toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Very toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

**12.2. Persistence and Degradability**

Data not available.

**12.3. Bioaccumulative Potential**

Data not available.

**12.4. Mobility in Soil**

Data not available.

**12.5. Other Adverse Ecological Effects**

Data not available.

### SECTION 13: Disposal Considerations

**13.1. Waste Treatment Methods**

Data not available.

## Safety Data Sheet

### SECTION 14: Transportation Information

#### 14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

UN Number: UN3495

Proper Shipping Name: Iodine

Hazard Class: 8 (6.1)

Packing Group: III

Hazard Placard Labels:



#### 14.2. Transportation by Air - International Air Transport Association (IATA)

UN Number: UN3495

Proper Shipping Name: Iodine

Hazard Class: 8 (6.1)

Packing Group: III

Hazard Placard Labels:



### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

#### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

#### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Iodine (CAS # 7553-56-2): 0.001 curie final RQ; 0.000037 TBq final RQ

Iodine (CAS # 7553-56-2): 0.01 curie final RQ; 0.00037 TBq final RQ

Iodine (CAS # 7553-56-2): 0.1 curie final RQ; 0.0037 TBq final RQ

Iodine (CAS # 7553-56-2): 1 curie final RQ; 0.037 TBq final RQ

Iodine (CAS # 7553-56-2): 10 curie final RQ; 0.37 TBq final RQ

Iodine (CAS # 7553-56-2): 100 curie final RQ; 3.7 TBq final RQ

Iodine (CAS # 7553-56-2): 1000 curie final RQ; 37 TBq final RQ



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### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

### 15.5. Massachusetts Right-to-Know Substance List

Iodine (CAS # 7553-56-2): Present

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Iodine (CAS # 7553-56-2): Present

### 15.7. New Jersey Worker and Community Right-to-Know Components

Iodine (CAS # 7553-56-2): sn 1026

### 15.8. California Proposition 65

Iodine (CAS # 7553-56-2): developmental toxicity, initial date 1/1/89

### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Iodine (CAS # 7553-56-2): Present

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Iodine (CAS # 7553-56-2): Present

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

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### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life.

Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

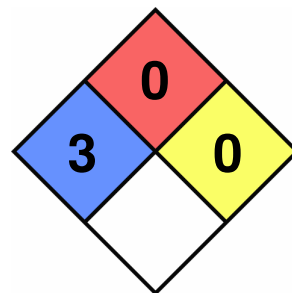
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 3  
**Flammability:** 0  
**Reactivity:** 0  
**Special Hazard:**



#### 16.4. Document Revision

**Last Revision Date:** 8/31/2015



## Safety Data Sheet

### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.