

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 407.00

Revision Date: May 10, 2011

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### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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#### Iodine

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

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Iodine

CAS#: 7553-56-2

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### SECTION 3 — HAZARDS IDENTIFICATION

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Gray-black flakes with a metallic luster. Characteristic odor.

Highly toxic by ingestion and inhalation.

Irritating and corrosive to skin. Avoid all body contact.

#### FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-2

Exposure-3

Storage-1

0 is low hazard, 3 is high hazard

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### SECTION 4 — FIRST AID MEASURES

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Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Rinse mouth. Give 1 to 2 cups of water or milk. Induce vomiting. Call a physician or poison control at once.

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### SECTION 5 — FIRE FIGHTING MEASURES

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Nonflammable, noncombustible solid.

When heated to decomposition, emits toxic fumes of iodide and various iodine compounds.

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

None

established

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### SECTION 6 — ACCIDENTAL RELEASE MEASURES

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Restrict unprotected personnel from the area. Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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### SECTION 7 — HANDLING AND STORAGE

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Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates, and phosphates. Store in a cool, dry place. Store in a Flinn Chem-Saf bag; the substance sublimates. Frequently oxidizes metal shelves or metal containers in proximity to the iodine. Use and dispense in a hood.

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### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and a chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: Ceiling 0.1 ppm (OSHA)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Gray-black flakes with a metallic luster and characteristic odor.  
Solubility: Soluble in alcohol and other organic solvents, but not in water.

Formula: I<sub>2</sub>

Formula weight: 253.80

Boiling point: 185.24 °C

Melting point: 113.5 °C

Specific gravity: 4.98

**SECTION 10 — STABILITY AND REACTIVITY**

Avoid contact with magnesium, zinc, ammonia, and aluminum. Corrodes steel. Reacts violently with acetaldehyde.  
Shelf life: Fair, the substance sublimes. Frequently oxidizes metal shelves or metal containers in proximity to the iodine.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: Highly toxic, harmful vapor, corrosive, severe lachrymator, sensitizer, stomach pains, vomiting.

Chronic effects: Dermatitis.

Target organs: Thyroid.

ORL-HUM LD<sub>50</sub>: 28 mg/kg

IHL-RAT LC<sub>50</sub>: N.A.

SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

**SECTION 12 — ECOLOGICAL INFORMATION**

Data not yet available.

**SECTION 13 — DISPOSAL CONSIDERATIONS**

Please review all federal, state and local regulations that may apply, before proceeding.  
Flinn Suggested Disposal Method #12a is one option.

**SECTION 14 — TRANSPORT INFORMATION**

Shipping name: Iodine

Hazard class: 8L

UN number: UN3495

N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (231-442-4), RCRA code D002.

**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**