

Safety Data Sheet

Iodine

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Iodine
Recommended Use: Science education applications
Synonyms: Di-iodine
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



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

GHS Classification:

Skin Corrosion/Irritation Category 1C, Serious Eye Damage/Eye Irritation Category 1, Skin Sensitisation Category 1, Hazardous to the aquatic environment - Acute Category 1, Acute Toxicity - Inhalation Gas Category 4, Acute Toxicity - Dermal Category 4, Acute Toxicity - Oral Category 4

Acute Toxicity Inhalation Vapor Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Iodine	7553-56-2	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Section 5 Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.

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Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Hydrogen Iodide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage.
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Section 7 Handling and Storage

Handling:	Do not breathe dust/fume/gas/mist/vapors/spray. Wash 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 should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid direct sunlight and heat.
Storage:	Store locked up. Keep container tightly closed in a cool, well-ventilated place.
Storage Code:	Blue - Toxic. Store separately in a secured area.

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Iodine	0.01 ppm TWA (inhalable fraction and vapor)	0.1 ppm STEL (aerosol and vapor)	N/A	N/A

Control Parameters	
Engineering Measures:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
Respirator Type(s):	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves:	Nitrile, Polyvinyl chloride, Butyl rubber

Section 9 Physical Data

Formula: I ₂	Vapor Pressure: 0.3 mm at 20°C
Molecular Weight: 253.80	Evaporation Rate (BuAc=1): Sublimes at ordinary temperatures
Appearance: Purple Solid	Vapor Density (Air=1): 8.75
Odor: Strong Characteristic Irritating	Specific Gravity: 4.93
Odor Threshold: No data available	Solubility in Water: Slightly Soluble
pH: No data available	Log Pow (calculated): 2.49
Melting Point: 114 C	Autoignition Temperature: No data available
Boiling Point: 184 C	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: Not explosive	Percent Volatile by Volume: 100%

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Section 10

Reactivity Data

Reactivity:	Mildly reactive - See below
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Elevated temperatures
Incompatible Materials:	Metals (ferrous), Acetaldehydes, Rust, Strong reducing agents, Magnesium, Sulfur, Rubber, Plastics, Halogens
Hazardous Decomposition Products:	Hydrogen Iodide
Hazardous Polymerization:	Will not occur

Section 11

Toxicity Data

Routes of Entry	Inhalation, ingestion, eye or skin contact.
Symptoms (Acute):	Allergies, Impaired Kidney Function, Cardiovascular system, Central Nervous System Disorders, Pulmonary Edema, Headache, Iodism
Delayed Effects:	Hyperthyroidism Hypothyroidism Acne Allergies

Acute Toxicity:
Chemical Name
Iodine

CAS Number
7553-56-2

Oral LD50
Oral LD50 Mouse
22000 mg/kg
Oral LD50 Rat
14000 mg/kg

Dermal LD50
Not determined

Inhalation LC50
Not determined

Carcinogenicity:
Chemical Name
Iodine

CAS Number
7553-56-2

IARC
Not listed

NTP
Not listed

OSHA
Not listed

Chronic Effects:
Mutagenicity:
Teratogenicity:
Sensitization:
Reproductive:
Target Organ Effects:

No evidence of a mutagenic effect.
No evidence of a teratogenic effect (birth defect).
Evidence of a sensitization effect.
Evidence of negative lactation effects.

Acute: No data available
Chronic: No data available

Section 12

Ecological Data

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	This material is expected to have moderate mobility in soil. It absorbs to most soil types.
Persistence:	Adsorbs to sediment, evaporates into atmosphere.
Bioaccumulation:	Bioconcentration may occur.
Degradability:	Naturally occurring element. Does not biodegrade.
Other Adverse Effects:	Combines with organics, forming new compounds.

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Eco Toxicity
No data available

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	Not Determined

Section 14

Transport Information

Iodine

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Ground - DOT Proper Shipping Name:

UN3495

Iodine

Class 8 (Division 6.1)

P.G. III

Air - IATA Proper Shipping Name:

UN3495

Iodine

Class 8 (Division 6.1)

P.G. III

Section 15

Regulatory Information

TSCA Status:

All components in this product are on the TSCA Inventory.

Chemical Name**CAS
Number****§ 313 Name****§ 304 RQ****CERCLA RQ****§ 302 TPQ****CAA 112(2)
TQ**

Iodine

7553-56-2

No

No

No

No

No

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH

American Conference of Governmental
Industrial Hygienists

CAS

Chemical Abstract Service Number

CERCLA

Comprehensive Environmental Response,
Compensation, and Liability Act

DOT

U.S. Department of Transportation

IARC

International Agency for Research on Cancer

N/A

Not Available

NTP

National Toxicology Program

OSHA

Occupational Safety and Health Administration

PEL

Permissible Exposure Limit

ppm

Parts per million

RCRA

Resource Conservation and Recovery Act

SARA

Superfund Amendments and Reauthorization Act

TLV

Threshold Limit Value

TSCA

Toxic Substances Control Act

IDLH

Immediately dangerous to life and health