

# Safety Data Sheet

## Iodine Solution, 2%

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Iodine Solution, 2%  
**Recommended Use:** Science education applications  
**Synonyms:** Iodine Sodium Iodide Solution  
**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. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life.

**GHS Classification:**

Serious Eye Damage/Eye Irritation Category 1, Skin Corrosion/Irritation Category 2, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Oral Category 4

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Water                | 7732-18-5    | 95.4     |
| Potassium Iodide     | 7681-11-0    | 2.6      |
| Iodine               | 7553-56-2    | 2        |

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**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. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**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:** Iodine (gas)

### Section 6 Spill or Leak Procedures

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## 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. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Isolate area. Keep unnecessary personnel away.  
Absorb the liquid and scrub the area with detergent and water. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.

## Section 7

## Handling and Storage

**Handling:** Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. 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.

**Storage:** Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** Green - general chemical storage

## Section 8

## Protection Information

| Chemical Name    | ACGIH                                          |                                     | OSHA PEL |        |
|------------------|------------------------------------------------|-------------------------------------|----------|--------|
|                  | (TWA)                                          | (STEL)                              | (TWA)    | (STEL) |
| Potassium Iodide | 0.01 ppm TWA<br>(inhalable fraction and vapor) | N/A                                 | N/A      | N/A    |
| Iodine           | 0.01 ppm TWA<br>(inhalable fraction and vapor) | 0.1 ppm STEL<br>(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:** No respiratory protection required under normal conditions of use.

**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:** No information available

## Section 9

## Physical Data

**Formula:** See Section 3

**Molecular Weight:** No data available

**Appearance:** Purple-Yellow Liquid

**Odor:** Moderate Characteristic

**Odor Threshold:** No data available

**pH:** No data available

**Melting Point:** No data available

**Boiling Point:** Estimated 100 C 100 C

**Flash Point:** No data available

**Flammable Limits in Air:** No data available

**Vapor Pressure:** No data available

**Evaporation Rate (BuAc=1):** No data available

**Vapor Density (Air=1):** No data available

**Specific Gravity:** No data available

**Solubility in Water:** Soluble

**Log Pow (calculated):** No data available

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** No data available

**Percent Volatile by Volume:** No data available

## Section 10

## Reactivity Data

**Reactivity:** Not generally reactive under normal conditions.

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Dusting. Elevated temperatures

**Incompatible Materials:** Water-reactive materials, Strong oxidizing agents, Peroxides, Metals (ferrous), Acetaldehydes, Rust, Strong reducing agents, Magnesium, Sulfur, Rubber, Plastics, Halogens

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**Hazardous Decomposition Products:** Iodine (gas)  
**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation and ingestion., Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** Iodism, Hyperthyroidism, Hypothyroidism, Allergies, Impaired Kidney Function, Cardiovascular system, Central Nervous System Disorders, Pulmonary Edema, Headache  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name    | CAS Number | Oral LD50                                                      | Dermal LD50 | Inhalation LC50 |
|------------------|------------|----------------------------------------------------------------|-------------|-----------------|
| Water            | 7732-18-5  | Oral LD50 Rat<br>90000 mg/kg                                   |             |                 |
| Potassium Iodide | 7681-11-0  |                                                                |             |                 |
| Iodine           | 7553-56-2  | Oral LD50 Mouse<br>22000 mg/kg<br>Oral LD50 Rat<br>14000 mg/kg |             |                 |

### Carcinogenicity:

| Chemical Name    | CAS Number | IARC       | NTP        | OSHA       |
|------------------|------------|------------|------------|------------|
| Potassium Iodide | 7681-11-0  | Not listed | Not listed | Not listed |
| Iodine           | 7553-56-2  | Not listed | Not listed | Not listed |

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** Evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** Thyroid  
**Chronic:** Thyroid

## Section 12 Ecological Data

**Overview:** Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.  
**Mobility:** No data  
**Persistence:** Dissolved into water, Adsorbs to sediment, evaporates into atmosphere.  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data  
Combines with organics, forming new compounds.

| Chemical Name    | CAS Number | Eco Toxicity      |
|------------------|------------|-------------------|
| Water            | 7732-18-5  | No data available |
| Potassium Iodide | 7681-11-0  |                   |
| Iodine           | 7553-56-2  | 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

**Ground - DOT Proper Shipping Name:** Not regulated for transport by US DOT.  
**Air - IATA Proper Shipping Name:** Not regulated for air transport by IATA.

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## 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 |
|------------------|------------|------------|----------|-----------|-----------|---------------|
| Potassium Iodide | 7681-11-0  | No         | No       | No        | No        | No            |
| 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             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                     | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                           | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available                                                         | SARA | Superfund Amendments and Reauthorization Act  |
|        |                                                                       | TLV  | Threshold Limit Value                         |
|        |                                                                       | TSCA | Toxic Substances Control Act                  |
|        |                                                                       | IDLH | Immediately dangerous to life and health      |