

## Material Safety Data Sheet



# LUGOL SOLUTION

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**Carolina Biological Supply Company**

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

**CAROLINA**  
www.carolina.com

### Section 1 - Product Description

**Product Name:** Lugol Solution

**Product Code(s):** C90034, 87-2793, 87-2795

**Size:** 30 mL, 100 mL, 500 mL

**Chemical Name:** Product is mixture

**CAS Number:** See Section 3

**Formula:** See Section 3

**Synonyms:** Donaldson's Amoeba Stain 2

**Distributor:** Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 - Hazard Identification

**Emergency Overview:** Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

**Potential Health Effects:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation to skin.

**Ingestion:** May cause gastrointestinal discomfort.

**Inhalation:** May cause irritation to respiratory tract.

### Section 3 - Composition / Information on Ingredients

**Principal Hazardous Components:** Potassium Iodide (CAS# 7681-11-0)10%; Iodine (CAS# 7553-56-2) 5%

**TLV units:** Iodine: ACGIH-TLV Ceiling 0.1 ppm

Potassium Iodide: No information found

**PEL units:** Iodine: OSHA-PEL Ceiling 0.1 ppm, Ceiling 1 mg/m<sup>3</sup>

Potassium Iodide: No information found

### Section 4 - First Aid Measures

**Emergency and First Aid Procedures:**

**Eyes** - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin** - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

**Ingestion** - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

**Inhalation** - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

## Section 5 - Firefighting Procedures

**Flash Point (Method Used):** N/A

**NFPA Rating:**

**Health:** 1

**Fire:** 0

**Reactivity:** 0

**Extinguisher Media:** Use dry chemical, CO<sub>2</sub> or appropriate foam.

**Flammable Limits in Air % by Volume:** N/A

**Autoignition Temperature:** N/A

**Special Firefighting Procedures:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.

## Section 6 - Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

## Section 7 - Special Precautions

**Precautions to Take in Handling or Storing:** Keep container tightly closed in a cool, well-ventilated place. Keep away from ... (incompatible materials to be indicated by the manufacturer). Suitable for any general chemical storage.

## Section 8 - Protection Information

**Respiratory Protection (Specify Type):** None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

**Ventilation:**

**Local Exhaust:** Yes

**Mechanical(General):** Yes

**Special:** No

**Other:** No

**Protective Gloves:** Natural rubber, Neoprene, PVC or equivalent.

**Eye Protection:** Splash proof chemical safety goggles should be worn.

**Other Protective Clothing or Equipment:** Lab coat, apron, eye wash, safety shower.

## Section 9 - Physical Data

**Molecular Weight:** N/A

**Boiling Point:** Approximately 100 °C

**Vapor Density(Air=1):** N/A

**Percent Volatile by Volume:** 98%

**Solubility in Water:** Soluble

**Melting Point:** N/A

**Vapor Pressure:** Approximately 17.535 @ 20 °C

**Specific Gravity (H<sub>2</sub>O=1):** 1.0

**Evaporation Rate (BuAc=1):** 1

**Appearance and Odor:** Deep amber liquid with slight

characteristic odor of iodine.

## Section 10 - Reactivity Data

**Stability:** Stable

**Conditions to Avoid:** Heat and sources of ignition.

**Incompatibility (Materials to Avoid):** Ammonia fumes,

**Hazardous Decomposition Products:** Free Iodine

**Hazardous Polymerization:** Will not occur

## Section 11 - Toxicity Data

**Toxicity Data:** Potassium Iodide: orl-mouse LDLo 1862 mg/kg

Iodine: orl-rat LD50 14 g/kg

**Effects of Overexposure:**

**Acute:** See Section 2

**Chronic:** Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited. Reproductive data cited.

**Conditions Aggravated by Overexposure:** Respiratory disorders, Skin disorders, Eye disorders,

**Target Organs:** N/A

**Primary Route(s) of Entry:** Inhalation, ingestion, eye or skin contact.

## Section 12 - Ecological Data

**EPA Waste Numbers:** N/A

## Section 13 - Disposal Information

**Waste Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

## Section 14 - Transport Information

**DOT Proper Shipping Name:** N/A

## Section 15 - Regulatory Information

**EPA TSCA Status:** On TSCA Inventory

**Hazard Category for SARA Section 311/312 Reporting:** Acute

**Name List:**

Potassium Iodide - No

Iodine - No

**Chemical Category:**

Potassium Iodide - No

Iodine - No

**CERCLA Section 103 RQ(lb.):** Potassium Iodide - No

Iodine - No

**RCRA Section 261.33:** Potassium Iodide - No

Iodine - No

## Section 16 - Additional Information

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. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of 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