

# Material Safety Data Sheet

## Iodine-Potassium Iodide Solution

ACC# 45417

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Iodine-Potassium Iodide Solution

**Catalog Numbers:** S71949, S71950, NC9822748, S93408

**Synonyms:** None

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	95	231-791-2
7553-56-2	Iodine	2.0-3.0	231-442-4
7681-11-0	Potassium iodide	2.0-3.0	231-659-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: dark amber liquid.

**Caution!** May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation. May cause digestive tract irritation.

**Target Organs:** Central nervous system, respiratory system, cardiovascular system.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

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

**Chronic:** Chronic exposure can lead to iodism characterized by salivation, nasal discharge, sneezing, conjunctivitis, fever, laryngitis, bronchitis, stomatitis, and skin rashes.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration.

Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: ; Flammability: ; Instability:

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Cover with sand, dry lime or soda ash and place in a closed container for disposal.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation.

**Storage:** Store in a cool, dry place.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
Iodine	0.1 ppm Ceiling	2 ppm IDLH	0.1 ppm Ceiling; 1 mg/m <sup>3</sup> Ceiling
Potassium iodide	none listed	none listed	none listed

**OSHA Vacated PELs:** Water: No OSHA Vacated PELs are listed for this chemical. Iodine: No OSHA Vacated PELs are listed for this chemical. Potassium iodide: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Appearance:** dark amber  
**Odor:** iodine-like  
**pH:** Not available.  
**Vapor Pressure:** 14 mm Hg  
**Vapor Density:** 0.7  
**Evaporation Rate:** >1  
**Viscosity:** Not available.  
**Boiling Point:** 100 deg C  
**Freezing/Melting Point:** 0 deg C  
**Decomposition Temperature:** Not available.  
**Solubility:** Soluble in water.  
**Specific Gravity/Density:** 1.0  
**Molecular Formula:** Mixture  
**Molecular Weight:** Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials.  
**Incompatibilities with Other Materials:** Powdered aluminum, active metals, strong reducing agents. Acetylene and acetaldehyde causes explosive reactions with iodine. Mixtures with ammonium hydroxide form shock sensitive compounds.  
**Hazardous Decomposition Products:** Hydrogen iodide, iodine, iodide ions (I-).  
**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 7732-18-5:** ZC0110000

**CAS# 7553-56-2:** NN1575000

**CAS# 7681-11-0:** TT2975000

**LD50/LC50:**

**CAS# 7732-18-5:**

Oral, rat: LD50 = >90 mL/kg;

**CAS# 7553-56-2:**

Oral, mouse: LD50 = 22 gm/kg;

Oral, mouse: LD50 = 1000 mg/kg;

Oral, rabbit: LD50 = 10 gm/kg;

Oral, rat: LD50 = 14 gm/kg;

**CAS# 7681-11-0:**

**Carcinogenicity:**

**CAS# 7732-18-5:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**CAS# 7553-56-2:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**CAS# 7681-11-0:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** Potassium iodide has been observed to cause developmental abnormalities of the endocrine system in human fetuses.

**Reproductive Effects:** No information available.

**Mutagenicity:** No information available.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CORROSIVE LIQUIDS, N.O.S.	No information available.
<b>Hazard Class:</b>	8	
<b>UN Number:</b>	UN1760	
<b>Packing Group:</b>	II	

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 7553-56-2 is listed on the TSCA inventory.

CAS# 7681-11-0 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7553-56-2: immediate, delayed, fire.

CAS # 7681-11-0: immediate, delayed.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7553-56-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 7681-11-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

**WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information available.

CAS# 7553-56-2: 1

CAS# 7681-11-0: 1

**Canada - DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7553-56-2 is listed on Canada's DSL List.

CAS# 7681-11-0 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2A, E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 7553-56-2 is listed on the Canadian Ingredient Disclosure List.

CAS# 7681-11-0 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 9/02/1997

**Revision #4 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*