



**Material Safety Data Sheet**  
**Iodine Monochloride, WIJS Solution**

## Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Iodine Monochloride, WIJS Solution

**Catalog Numbers:**

LC15680

**Synonyms:**

Iodine monochloride in acetic acid

**Company Identification:**

LabChem, Inc.  
 200 William Pitt Way  
 Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

## Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
64-19-7	Glacial acetic acid	98.3
7553-56-2	Iodine	1.3
7782-50-5	Chlorine	0.33

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

*Appearance: Amber*

*Skin sensitizer. Corrosive. Causes severe respiratory tract irritation. May cause severe digestive tract irritation with possible burns. Flash Point: 106°F.*

*Target Organs: Noneknown.*

**Potential Health Effects****Eye:**

Vapors are irritating to the eye, liquid contact may result in clouding of the cornea, erosion, up to total corneal opacification and loss of the eye. Corrosive vapors above 5ppm.

**Skin:**

Skin contact may result in irritation, pain, burns, blisters, and brown or yellow stains. Corrosive irritant/sensitizer.



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#### **Ingestion:**

Ingestion results in irritation/corrosion of mucous membranes, mouth, stomach with edema (severe) of the pharynx, larynx; abdominal spasms, nausea, vomiting, colitis, hypotension, circulatory collapse, delirium, coma possible. One ounce (30 mL) can burn holes in throat; five ounces can cause death.

#### **Inhalation:**

Nose, throat and lung irritant above 10 ppm. Intolerable at 50 ppm for most; severe respiratory tract irritation, coughing, choking, throat swelling, fluid in the lungs, headache and dizziness.

#### **Chronic:**

Sensitization, hypersensitivity, dental erosion, ulceration of jaw, nose, throat; throat and lung disease (bronchitis, pneumonia, laryngitis), gastrointestinal disturbances, "iodism", tissue necrosis, skin blackening, painful joint swelling, conjunctivitis

## Section 4 - First Aid Measures

#### **Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until chemical is gone. Get medical aid at once.

#### **Skin:**

Get medical aid at once. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

#### **Ingestion:**

Do NOT induce vomiting. Get medical aid at once. Give 1 ounce of milk of magnesia. Give conscious victim large quantities of water to dilute acid.

#### **Inhalation:**

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

#### **Notes to Physician:**

Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

#### **General Information:**

Vapor heavier than air, may travel considerable distance and flashback from source of ignition. Avoid breathing corrosive vapors. Moderate fire and explosion hazard when exposed to heat or flame. Acetic acid may react explosively with oxidizing materials or give off flammable/explosive vapors above its flash point (104°F). Use flooding quantities of water as fog (streams may spread fire), cool all containers. Flammable/explosive vapors given off above 104°F.

#### **Extinguishing Media:**

In case of fire use water spray, dry chemical, carbon dioxide, or appropriate foam.

#### **Autoignition Temperature:**

n/a

#### **Flash Point:**

106°F (41.11°C)

#### **NFPA Rating:**

CAS # 64-19-7 health-3; flammability-2; reactivity-0

CAS# 7553-56-2: Not published.

CAS# 7782-50-5: Not published.



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### Explosion Limits:

Lower: 4%      Upper: 16%

## Section 6 - Accidental Release Measures

### General Information:

Use proper personal protective equipment as indicated in Section 8.

### Spills/Leaks:

Absorb liquid with a non-combustible absorbent (sand), place in a suitable container (glass, plastic, lined metal) and label for disposal.

## Section 7 - Handling and Storage

### Handling:

Keep away from acids, alkalis, oxidizers, and metals. Keep container tightly capped to control vapors, protect from heat and flame.

### Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Provide local exhaust ventilation to meet OSHA exposure limits.

### Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Glacial acetic acid	10 ppm TWA; 15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA	10 ppm TWA; 25 mg/m <sup>3</sup> TWA;
Iodine	None of the components are on this list.	None of the components are on this list.	C 0.1 ppm; C 1 mg/m <sup>3</sup> ;
Chlorine	0.5 ppm TWA; 1 ppm STEL	None of the components are on this list.	C 1 ppm; C 3 mg/m <sup>3</sup> ;

### OSHA Vacated PELs

Glacial acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

Glacial acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

Chlorine: 0.5 ppm TWA; 1.5 mg/m<sup>3</sup> TWA

## Personal Protective Equipment

### Eyes:

Do not wear contact lenses when working with chemicals. Wear splash-proof safety goggles.

### Skin:

Wear acid protective clothing and gloves.

### Clothing:

Wear acid protective clothing and gloves.



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### Respirators:

To 500 ppm - CCROVF; gas mask = GMOV; SAF; SCBAF. Above 500 ppm - SCBAF, PP, PD; type c - SAF in pressure mode or continuous flow... Escape - EMOV; SCBA.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Color:** Amber  
**Odor:** Pungent vinegar-like odor  
**pH:** 2.4  
**Vapor Pressure:** 11 mm Hg  
**Vapor Density:** 2.4  
**Evaporation Rate:** >1  
**Viscosity:** n/a  
**Boiling Point:** 244°F (117.78°C)  
**Freezing/Melting Point:** 63°F (17.22°C)  
**Decomposition Temperature:** n/a  
**Solubility in water:** Soluble.  
**Specific Gravity/Density:** 1.06  
**Molecular Formula:** Mixture  
**Molecular Weight:** No information found.

## Section 10 - Stability and Reactivity

### Chemical Stability:

Stable under normal temperatures and pressures.

### Conditions to Avoid:

Gives off large amounts of heat when mixed with alkali substances such as carbonates and hydroxides., Reacts with most metals including zinc and stainless steel., Reacts violently or explosively with oxidizing materials such as chromic acid, peroxides, halides, perchlorates, and permanganates., Reacts violently with organic amines., Iodine reacts explosively with acetylene and ammonia, violently with acetaldehyde..

### Incompatibilities with Other Materials

Carbonates, hydroxides, zinc, steel, chromic acid, peroxides, halides, perchlorates, permanganates, organic amines, acetylene, ammonia, acetaldehyde.

### Hazardous Decomposition Products

Hydrogen chloride, oxides of carbon, iodine compounds, toxic fumes of iodine.

### Hazardous Polymerization

Will not occur.

## Section 11 - Toxicological Information

### RTECS:

CAS# 64-19-7: AF1225000.  
CAS# 7553-56-2: NN1575000.  
CAS# 7782-50-5: FO2100000.



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### LD50/LC50:

CAS# 64-19-7:

Inhalation, mouse: LC50 = 5620 ppm/1H

Oral, rat: LD50 = 3310 mg/kg

Skin, rabbit: LD50 = 1060 mg/kg.

CAS# 7553-56-2:

Oral, mouse: LD50 = 22 gm/kg

Oral, rabbit: LD50 = 10 gm/kg

Oral, rat: LD50 = 14 gm/kg.

CAS# 7782-50-5:

Inhalation, mouse: LC50 = 137 ppm/1H

Inhalation, rat: LC50 = 293 ppm/1H.

### Carcinogenicity:

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7553-56-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7782-50-5

ACGIH: A4 - Not Classifiable as a Human Carcinogen

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Not listed.

### Epidemiology:

No carcinogenicity data reported.

### Teratogenicity:

### Reproductive:

### Mutagenicity:

### Neurotoxicity:

## Section 12 - Ecological Information

No information found.

## Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

## Section 14 - Transport Information

### US DOT

**Shipping Name:** Corrosive liquid, Flammable, n.o.s.  
(Acetic acid)

**Hazard Class:** 8

**UN Number:** UN2920



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Packing Group: PG II

**Section 15 - Regulatory Information**

**US Federal**

**TSCA**

CAS# 64-19-7 is listed on the TSCA Inventory.  
CAS# 7553-56-2 is listed on the TSCA Inventory.  
CAS# 7782-50-5 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ)**

CAS# 64-19-7: final RQ = 5000 pounds (2270 kg)  
CAS# 7782-50-5: final RQ = 10 pounds (4.54 kg)

**CERCLA/SARA Section 313**

Chlorine is not at a high enough concentration to be reportable under Section 313.

**OSHA - Highly Hazardous**

CAS# 7782-50-5 is considered highly hazardous by OSHA.

**US State**

**State Right to Know**

Glacial acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.  
Iodine can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.  
Chlorine can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**California Regulations**

**European/International Regulations**

**Canadian DSL/NDSL**

CAS# 64-19-7 is listed on Canada's DSL List.  
CAS# 7553-56-2 is listed on Canada's DSL List.  
CAS# 7782-50-5 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List**

CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.  
CAS# 7553-56-2 is listed on Canada's Ingredient Disclosure List.  
CAS# 7782-50-5 is listed on Canada's Ingredient Disclosure List.

**Section 16 - Other Information**

MSDS Creation Date: December 9, 1999  
Revision Date: September 6, 2007



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