

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.11.2017

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**Iodine Reagent, ACS**

## SECTION 1: Identification

### Product identifier

**Product name:** Iodine Reagent, ACS

**Product code:** IO2800

### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

### Manufacturer or supplier details

**Manufacturer:**

**United States**

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

### Emergency telephone number:

**United States**

**ChemTel Inc**

+1(800)255-3924

+1(813)248-0585

## SECTION 2: Hazard(s) identification

### GHS classification:

Acute toxicity (oral), category 4

Acute toxicity (dermal), category 4

Acute toxicity (inhalation), category 4

Skin irritation, category 2

Eye irritation, category 2A

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Specific target organ toxicity - repeated exposure, category 1

Acute aquatic hazard, category 1

### Label elements

#### Hazard pictograms:



**Signal word:** Danger

### Hazard statements:

H302 Harmful if swallowed

H312 Harmful in contact with skin

H332 Harmful if inhaled

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

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H372 Causes damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

#### Precautionary statements:

P264 Wash skin thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P280 Wear protective gloves/protective clothing/eye protection/face protection

P271 Use only outdoors or in a well-ventilated area

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P273 Avoid release to the environment

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell

P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell

P321 Specific treatment (see supplemental first aid instructions on this label).

P362 Take off contaminated clothing and wash before reuse

P332+P313 If skin irritation occurs: Get medical advice/attention

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

P314 Get medical advice/attention if you feel unwell

P391 Collect spillage

P405 Store locked up

P403+P233 Store in a well ventilated place. Keep container tightly closed

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7553-56-2	Iodine	100

**Additional Information:** None

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

Not determined or not applicable.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Move to fresh air

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

##### After eye contact:

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Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention  
Remove contact lens(es) if able to do so during rinsing  
Seek medical attention if irritation persists or if concerned

#### After swallowing:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

#### Most important symptoms and effects, both acute and delayed

##### Acute symptoms and effects:

Not determined or not applicable.

##### Delayed symptoms and effects:

Not determined or not applicable.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not applicable.

##### Notes for the doctor:

Not determined or not applicable.

### SECTION 5: Firefighting measures

#### Extinguishing media

##### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

##### Unsuitable extinguishing media:

Not determined or not applicable.

#### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

#### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

#### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing

#### Environmental precautions:

Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

#### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

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### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.

### Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Iodine	7553-56-2	OSHA PEL Ceiling: 0.1 ppm (1mg/m <sup>3</sup> )
ACGIH	Iodine	7553-56-2	ACGIH TLV TWA: 0.1 ppm

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Not determined or not applicable.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

#### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

### General hygienic measures:

Wash hands before breaks and at the end of work.  
Avoid contact with skin, eyes and clothing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Black solid
Odor	Pungent odor
Odor threshold	Not determined or not available.
pH	5.4
Melting point/freezing point	113°C (235°F)
Initial boiling point/range	184°C (363°F)
Flash point (closed cup)	Not determined or not available.

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Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	0.41 hPa (0.31 mmHg) at 25 °C
Vapor density	8.76 (Air = 1)
Density	Not determined or not available.
Relative density	4.930 g/cm <sup>3</sup> at 20°C
Solubilities	Slightly soluble in water.
Partition coefficient (n-octanol/water)	log Pow= 2.49 at 20°C (68°F)
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

### Other information

#### SECTION 10: Stability and reactivity

##### Reactivity:

Does not react under normal conditions of use and storage.

##### Chemical stability:

Stable under normal conditions of use and storage.

##### Possibility of hazardous reactions:

None under normal conditions of use and storage.

##### Conditions to avoid:

Incompatible materials.

##### Incompatible materials:

Rubber, Plastics, Iron and iron salts., Sulphur compounds, Ammonia, Magnesium, Zinc, Aluminum, Metals, Alkalis, Antimony salts, Arsenites, bromides, chlorides, iodides, thiocyanates, ferrous salts, hypophosphites, morphine salts, oils, creosote, phosphates, tannins, tartrates, Mixing iodine, antimony, and ammonia resulted in an explosion.

A violent reaction occurs between iodine and acetaldehyde, acetylene, and strong oxidizing agents.

##### Hazardous decomposition products:

Hydrogen iodide.

#### SECTION 11: Toxicological information

##### Acute toxicity

**Assessment:** Harmful if swallowed Harmful in contact with skin Harmful if inhaled

**Product data:** No data available.

##### Substance data:

Name	Route	Result
Iodine	oral	LCLo - Dog: 800 mg/m3
	inhalation	LCLo - Rat: 137 ppm/1 Hr

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#### Skin corrosion/irritation

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Iodine	Causes skin irritation.

#### Serious eye damage/irritation

**Assessment:** Causes serious eye irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Iodine	Causes serious eye irritation.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (single exposure)

**Assessment:** May cause respiratory irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Iodine	May cause respiratory irritation.
	Causes damage to organs through prolonged or repeated exposure.

#### Specific target organ toxicity (repeated exposure)

**Assessment:** Causes damage to organs through prolonged or repeated exposure

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

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**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Iodine	EC50 - Daphnia magna: 330 ug/L (48 hrs)
	LC50 - Ictalurus punctatus: 440 ug/L

#### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

#### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

#### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

#### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

#### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

### SECTION 14: Transport information

#### United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN3495
UN proper shipping name	Iodine
UN transport hazard class(es)	8
Packing group	III
Environmental hazards	None
Special precautions for user	None



#### International Maritime Dangerous Goods (IMDG)

UN number	UN3495
UN proper shipping name	Iodine


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UN transport hazard class(es)	8	
Packing group	III	
Environmental hazards	None	
Special precautions for user	None	

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN3495	
UN proper shipping name	Iodine	
UN transport hazard class(es)	8	
Packing group	III	
Environmental hazards	None	
Special precautions for user	None	

## SECTION 15: Regulatory information

### United States regulations

#### Inventory listing (TSCA):

7553-56-2	Iodine	Listed
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**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

#### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

#### SARA Section 313 toxic chemicals:

7553-56-2	Iodine	Not Listed
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**CERCLA:** Not determined.

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

#### Massachusetts Right to Know:

7553-56-2	Iodine	Listed
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#### New Jersey Right to Know:

7553-56-2	Iodine	Listed
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#### New York Right to Know:

7553-56-2	Iodine	Listed
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#### Pennsylvania Right to Know:

7553-56-2	Iodine	Listed
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**California Proposition 65:** None of the ingredients are listed.

## SECTION 16: Other information



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**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 2-0-0

**HMIS:** 2-0-0-X

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**End of Safety Data Sheet**