

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.04.2017

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## Iodine, Gram's, Stock Solution

### SECTION 1: Identification

#### Product identifier

**Product name:** Iodine, Gram's, Stock Solution

**Product code:** IO5200SS

#### 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:

##### Canada

##### ChemTel: (24-hour)

+1(800)255-3924

+1(813)248-0585 (International)

### SECTION 2: Hazard identification

#### GHS classification:

Flammable liquids, category 2

Specific target organ toxicity - repeated exposure, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H225 Highly flammable liquid and vapor.

H372 Causes damage to organs through prolonged or repeated exposure.

#### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/light/equipment.

P242 Use only non-sparking tools.

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P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 Wash skin thoroughly after handling.  
P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.  
P370+P378 In case of fire: Use agents recommended in section 5 for extinction.  
P314 Get medical advice/attention if you feel unwell.  
P403+P235 Store in a well ventilated place. Keep cool.  
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: 64-17-5	Ethanol	70
CAS number: 7732-18-5	Water	>25
CAS number: 7553-56-2	Iodine	<3
CAS number: 7681-11-0	Potassium Iodide	<2

**Additional Information:** None

### SECTION 4: First-aid measures

#### Description of first-aid measures

##### General notes:

Not determined or not available.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

##### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

##### After ingestion:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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

##### Acute symptoms and effects:

Not determined or not available.

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**Delayed symptoms and effects:**

Not determined or not available.

**Immediate medical attention and special treatment****Specific treatment:**

Not determined or not available.

**Notes for the doctor:**

Not determined or not available.

### SECTION 5: Fire-fighting measures

**Extinguishing media****Suitable extinguishing media:**

Use dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

**Unsuitable extinguishing media:**

Not determined or not applicable.

**Specific hazards during fire-fighting:**

Thermal decomposition can lead to release of irritating gases and vapors

Vapors can flow to distant ignition sources and flashback

Liquid is volatile and may generate an explosive atmosphere

**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:**

Beware of vapors accumulating to form explosive concentrations

Vapors can accumulate in low areas

Ensure adequate ventilation

Ensure air handling systems are operational

**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

Use spark-proof tools and explosion-proof equipment

**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.

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Avoid breathing mist or vapor.  
Use only non-sparking tools.  
Take precautionary measures against electrostatic discharges.

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

Store in a cool, well-ventilated area.  
Keep container tightly sealed.  
Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.  
Store locked up.  
Use appropriate containment to avoid environmental contamination.  
Protect from freezing and physical damage.

### 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
ACGIH	Ethanol	64-17-5	ACGIH TLV TWA 1,000 ppm
	Ethanol	64-17-5	ACGIH TLV STEL 1,000 ppm
	Potassium Iodide	7681-11-0	ACGIH TLV 0.01 mg/m <sup>3</sup> , inhalable fraction and vapor (iodides)
	Iodine	7553-56-2	ACGIH TLV TWA: 0.1 ppm
United States (OSHA)	Ethanol	64-17-5	OSHA PEL TWA 1,000 ppm
	Ethanol	64-17-5	OSHA PEL TWA 1,900 mg/m <sup>3</sup>
	Iodine	7553-56-2	OSHA PEL Ceiling: 0.1 ppm (1mg/m <sup>3</sup> )
NIOSH	Ethanol	64-17-5	NIOSH REL TWA 1,000 ppm
	Ethanol	64-17-5	NIOSH REL TWA 1,900 mg/m <sup>3</sup>

#### 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.  
Use explosion-proof ventilation equipment.

#### 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.

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Avoid contact with skin, eyes and clothing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance (physical state, color):</b>	Dark Brown liquid
<b>Odor:</b>	Alcohol
<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	Not determined or not available.
<b>Melting/Freezing point:</b>	Approx. -37°C
<b>Boiling point/range:</b>	Approx. 82°C
<b>Flash point:</b>	Not determined or not available.
<b>Evaporation rate:</b>	3.6
<b>Flammability (solid, gaseous):</b>	Flammable
<b>Explosion limit upper:</b>	Not determined or not available.
<b>Explosion limit lower:</b>	Not determined or not available.
<b>Vapor pressure:</b>	Not determined or not available.
<b>Vapor density:</b>	Not determined or not available.
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	Not determined or not available.
<b>Solubilities:</b>	Not determined or not available.
<b>Partition coefficient (n-octanol/water):</b>	Not determined or not available.
<b>Auto/Self-ignition temperature:</b>	Not determined or not available.
<b>Decomposition temperature:</b>	Not determined or not available.
<b>Dynamic viscosity:</b>	Not determined or not available.
<b>Kinematic viscosity:</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	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:

Excess heat, ignition source or flames.

### Incompatible materials:

None known.

### Hazardous decomposition products:

None known.

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#### SECTION 11: Toxicological information

##### Acute toxicity

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

**Product data:** No data available.

**Substance data:**

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

##### Skin corrosion/irritation

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

**Product data:** No data available.

**Substance data:**

Name	Result
Iodine	Causes skin irritation.

##### Serious eye damage/irritation

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

**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):**

Name	Classification
Ethanol	Group 1 - Carcinogenic to humans

**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)

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

**Product data:** No data available.

**Substance data:**

Name	Result
Potassium Iodide	Oral - May cause damage to organs through prolonged or repeated exposure - thyroid gland
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.

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

**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

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### 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

### Canadian Transportation of Dangerous Goods (TDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

### International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

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

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None

## SECTION 15: Regulatory information

### Canada regulations

#### Domestic substances list (DSL):

64-17-5	Ethanol	Listed
7681-11-0	Potassium Iodide	Listed
7553-56-2	Iodine	Listed



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7732-18-5	Water	Listed
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**Non-domestic substances list (NDSL):** Not determined.

### SECTION 16: Other information

**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:** 1-3-0

**HMIS:** 1-3-0

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**End of Safety Data Sheet**