## Potassium Iodide Solution

## SECTION 1: Identification

### Product identifier

**Product name:** Potassium Iodide Solution
**Product code:** PI3139SS

### 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:

Specific target organ toxicity - repeated exposure, category 1

### Label elements

**Hazard pictograms:**

**Signal word:** Danger

### Hazard statements:

H372 Causes damage to organs through prolonged or repeated exposure.

### Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P314 Get medical advice/attention if you feel unwell.
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: 144-55-8 | Sodium hydrogencarbonate | <100 |
| CAS number: 7758-05-6 | Potassium Iodate | <10 |
| CAS number: 1310-58-3 | Potassium hydroxide | <1 |
| CAS number: 10102-17-7 | Sodium thiosulfate pentahydrate | <100 |
| CAS number: 7732-18-5 | Water | <100 |
| CAS number: 7681-11-0 | Potassium Iodide | <100 |

**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
Get medical advice/attention if you feel unwell

**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
Remove contact lenses, if present and easy to do
Continue rinsing
Get medical advice/attention

**After ingestion:**
Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell

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

**Acute symptoms and effects:**
Not determined or not available.

**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 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
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

### Special precautions:
Heating causes a rise in pressure, risk of bursting and combustion
Shut off sources of ignition
Carbon monoxide and carbon dioxide may form upon combustion

## 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:
Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
Dispose of contents / container in accordance with local regulations

### 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.
Use only with adequate ventilation.

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

Store in a cool, well-ventilated area.
Store away from foodstuffs.

## 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 | Potassium hydroxide | 1310-58-3 | ACGIH TLV C 2.0 mg/m³ |
| | Potassium Iodide | 7681-11-0 | ACGIH TLV 0.01 mg/m³, inhalable fraction and vapor (iodides) |
| NIOSH | Potassium hydroxide | 1310-58-3 | NIOSH REL C 2.0 mg/m³ |

**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.
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**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.
Perform routine housekeeping.
Wash contaminated clothing before reusing.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance (physical state, color):** | Clear, colorless liquid |
| **Odor:** | Odorless |
| **Odor threshold:** | Not available |
| **pH-value:** | Not available |
| **Melting/Freezing point:** | Approx. 0°C |

**Potassium Iodide Solution**

| | |
|---|---|
| **Boiling point/range:** | Approx. 100°C |
| **Flash point:** | Not available |
| **Evaporation rate:** | Not available |
| **Flammability (solid, gaseous):** | Not available |
| **Explosion limit upper:** | Not available |
| **Explosion limit lower:** | Not available |
| **Vapor pressure:** | Not available |
| **Vapor density:** | Not available |
| **Density:** | Not available |
| **Relative density:** | Approx. 1.07 - 1.36 |
| **Solubilities:** | Infinite solubility in water. |
| **Partition coefficient (n-octanol/water):** | Not available |
| **Auto/Self-ignition temperature:** | Not available |
| **Decomposition temperature:** | Not available |
| **Dynamic viscosity:** | Not available |
| **Kinematic viscosity:** | 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:**
None known.

**Incompatible materials:**
None known.

**Hazardous decomposition products:**
None known.

## 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 |
|---|---|---|
| Potassium hydroxide | oral | LD50 - Rat - 333 mg/kg |

**Skin corrosion/irritation**

**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Potassium Iodate | Causes skin irritation. |
| Potassium hydroxide | Causes severe skin burns and eye damage. |

**Serious eye damage/irritation**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Potassium Iodate | 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:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Potassium Iodate | Specific Target Organ Toxicity, Single Exposure - May cause respiratory irritation. |
| Potassium Iodide | Oral - May cause damage to organs through prolonged or repeated exposure - thyroid gland |

**Specific target organ toxicity (repeated exposure)**
**Assessment:** Causes damage to organs through prolonged or repeated exposure
**Product data:** No data available.

**Potassium Iodide Solution**

**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:** No data available.

**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

**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** | |

| | |
|---|---|
| **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** | |
| **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** | |
| **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):**

| | | |
|---|---|---|
| 7758-05-6 | Potassium Iodate | Listed |
| 7732-18-5 | Water | Listed |
| 144-55-8 | Sodium hydrogencarbonate | Listed |
| 10102-17-7 | Sodium thiosulfate pentahydrate | Listed |
| 1310-58-3 | Potassium hydroxide | Listed |
| 7681-11-0 | Potassium Iodide | Listed |

**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:** 1-0-0

**HMIS:** 1-0-0

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**End of Safety Data Sheet**