

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

## 1 Identification

- **Product identifier**
- **Trade name:** Potassium Iodide-Iodate  
0.125 Normal, NIST Traceable Solution
- **Article number:** ERL124
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson shermann@aquasolutions.org  
Technical Coordinator  
Sherman Nelson shermann@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

*Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to organs through prolonged or repeated exposure.*

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*Potassium Iodide*
- **Hazard statements**  
*Causes damage to organs through prolonged or repeated exposure.*
- **Precautionary statements**  
*Do not breathe dust/fume/gas/mist/vapors/spray.*  
*Wash thoroughly after handling.*  
*Do not eat, drink or smoke when using this product.*  
*If swallowed: Call a poison center/doctor if you feel unwell.*  
*If on skin: Wash with plenty of water.*  
*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*  
*Continue rinsing.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 2)

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(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

|            |   |                |
|------------|---|----------------|
| HEALTH     | 0 | Health = 0     |
| FIRE       | 0 | Fire = 0       |
| REACTIVITY | 0 | Reactivity = 0 |

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

|                |                  |        |
|----------------|------------------|--------|
| CAS: 7681-11-0 | Potassium Iodide | 4.351% |
|----------------|------------------|--------|

· **Table of Nonhazardous Ingredients**

|                |                     |         |
|----------------|---------------------|---------|
| CAS: 7732-18-5 | Water               | 95.174% |
| CAS: 7758-05-6 | Potassium Iodate    | 0.431%  |
| CAS: 1310-58-3 | Potassium Hydroxide | 0.044%  |

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)

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(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.
- **Reference to other sections**  
 See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

### · PAC-1:

|                |                     |                        |
|----------------|---------------------|------------------------|
| CAS: 7681-11-0 | Potassium Iodide    | 1.3 mg/m <sup>3</sup>  |
| CAS: 7758-05-6 | Potassium Iodate    | 0.45 mg/m <sup>3</sup> |
| CAS: 1310-58-3 | Potassium Hydroxide | 0.18 mg/m <sup>3</sup> |

### · PAC-2:

|                |                     |                       |
|----------------|---------------------|-----------------------|
| CAS: 7681-11-0 | Potassium Iodide    | 15 mg/m <sup>3</sup>  |
| CAS: 7758-05-6 | Potassium Iodate    | 4.9 mg/m <sup>3</sup> |
| CAS: 1310-58-3 | Potassium Hydroxide | 2 mg/m <sup>3</sup>   |

### · PAC-3:

|                |                     |                      |
|----------------|---------------------|----------------------|
| CAS: 7681-11-0 | Potassium Iodide    | 87 mg/m <sup>3</sup> |
| CAS: 7758-05-6 | Potassium Iodate    | 29 mg/m <sup>3</sup> |
| CAS: 1310-58-3 | Potassium Hydroxide | 54 mg/m <sup>3</sup> |

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

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(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**CAS: 7681-11-0 Potassium Iodide**

|     |                                                    |
|-----|----------------------------------------------------|
| TLV | Long-term value: 0.01 ppm<br>A4; Skin; *inhalation |
|-----|----------------------------------------------------|

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Liquid

**Color:** Clear

- **Odor:** Odorless

- **Odor threshold:** Not determined.

(Contd. on page 5)

# Safety Data Sheet

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(Contd. of page 4)

|                                                   |                                               |
|---------------------------------------------------|-----------------------------------------------|
| · <b>pH-value:</b>                                | Not determined.                               |
| · <b>Change in condition</b>                      |                                               |
| <b>Melting point/Melting range:</b>               | 0 °C (32 °F)                                  |
| <b>Boiling point/Boiling range:</b>               | 100 °C (212 °F)                               |
| · <b>Flash point:</b>                             | Not applicable.                               |
| · <b>Flammability (solid, gaseous):</b>           | Not applicable.                               |
| · <b>Decomposition temperature:</b>               | Not determined.                               |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |                                               |
| <b>Lower:</b>                                     | Not determined.                               |
| <b>Upper:</b>                                     | Not determined.                               |
| · <b>Vapor pressure at 20 °C (68 °F):</b>         | 23 hPa (17.3 mm Hg)                           |
| · <b>Density at 20 °C (68 °F):</b>                | 1.03418 g/cm <sup>3</sup> (8.63023 lbs/gal)   |
| · <b>Relative density</b>                         | Not determined.                               |
| · <b>Vapor density</b>                            | Not determined.                               |
| · <b>Evaporation rate</b>                         | Not determined.                               |
| · <b>Solubility in / Miscibility with Water:</b>  | Not miscible or difficult to mix.             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                               |
| · <b>Viscosity:</b>                               |                                               |
| <b>Dynamic:</b>                                   | Not determined.                               |
| <b>Kinematic:</b>                                 | Not determined.                               |
| · <b>Solvent content:</b>                         |                                               |
| <b>Water:</b>                                     | 95.2 %                                        |
| <b>VOC content:</b>                               | 0.00 %                                        |
|                                                   | 0.0 g/l / 0.00 lb/gal                         |
| <b>Solids content:</b>                            | 3.8 %                                         |
| · <b>Other information</b>                        | No further relevant information available.    |

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 6)

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(Contd. of page 5)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
*The product shows the following dangers according to internally approved calculation methods for preparations:*
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

US  
(Contd. on page 7)

# Safety Data Sheet

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(Contd. of page 6)

## 14 Transport information

|                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| <b>· UN-Number</b>                                                               |                 |
| <b>· DOT, ADN, IMDG, IATA</b>                                                    | Not regulated   |
| <b>· UN proper shipping name</b>                                                 |                 |
| <b>· DOT, ADN, IMDG, IATA</b>                                                    | Not regulated   |
| <b>· Transport hazard class(es)</b>                                              |                 |
| <b>· DOT, ADN, IMDG, IATA</b>                                                    |                 |
| <b>· Class</b>                                                                   | Not regulated   |
| <b>· Packing group</b>                                                           |                 |
| <b>· DOT, IMDG, IATA</b>                                                         | Not regulated   |
| <b>· Environmental hazards:</b>                                                  |                 |
| <b>· Marine pollutant:</b>                                                       | No              |
| <b>· Special precautions for user</b>                                            | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>                                                  | Not regulated   |

## 15 Regulatory information

|                                                                                                         |        |
|---------------------------------------------------------------------------------------------------------|--------|
| <b>· Safety, health and environmental regulations/legislation specific for the substance or mixture</b> |        |
| No further relevant information available.                                                              |        |
| <b>· Sara</b>                                                                                           |        |
| <b>· Section 355 (extremely hazardous substances):</b>                                                  |        |
| None of the ingredients is listed.                                                                      |        |
| <b>· Section 313 (Specific toxic chemical listings):</b>                                                |        |
| None of the ingredients is listed.                                                                      |        |
| <b>· TSCA (Toxic Substances Control Act):</b>                                                           |        |
| Water                                                                                                   | ACTIVE |
| Potassium Iodide                                                                                        | ACTIVE |
| Potassium Iodate                                                                                        | ACTIVE |
| Potassium Hydroxide                                                                                     | ACTIVE |
| <b>· Hazardous Air Pollutants</b>                                                                       |        |
| None of the ingredients is listed.                                                                      |        |
| <b>· Proposition 65</b>                                                                                 |        |
| <b>· Chemicals known to cause cancer:</b>                                                               |        |
| None of the ingredients is listed.                                                                      |        |
| <b>· Chemicals known to cause reproductive toxicity for females:</b>                                    |        |
| None of the ingredients is listed.                                                                      |        |
| <b>· Chemicals known to cause reproductive toxicity for males:</b>                                      |        |
| None of the ingredients is listed.                                                                      |        |

(Contd. on page 8)

# Safety Data Sheet

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(Contd. of page 7)

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Potassium Iodide

· **Hazard statements**

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

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

Wash thoroughly after handling.

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

Revision 1.0 03/31/2023 Reviewed SDS for accuracy. STN

Creation date for SDS 07-29-2014. STN

04/04/2023

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 9)



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(Contd. of page 8)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

· **\* Data compared to the previous version altered.**

US