1 Identification

- **Product identifier**
  - **Trade name:** Potassium Iodide, 50% w/v
  - **Product code:** 880000343

- **Recommended use and restriction on use**
  - **Recommended use:** Laboratory chemicals
  - **Restrictions on use:** No relevant information available.

- **Details of the supplier of the Safety Data Sheet**
  - **Manufacturer/Supplier:** AquaPhoenix Scientific, Inc.
    860 Gitts Run Road
    Hanover, PA 17331
    Phone: (717)632-1291
    Toll-Free: (866)632-1291
    info@aquaphoenixsci.com
  - **Distributor:** Delaval Inc.
    11100 N. Congress Ave.,
    Kansas City, MO 64153
    (816) 891-1600
  - **Emergency telephone number:**
    ChemTel Inc.
    (800)255-3924 (North America)
    +1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
  STOT RE 1 H372 Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

- **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 statements:**
  H372 Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.
- **Precautionary statements:**
  P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  P264 Wash 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/container in accordance with local/regional/national/international regulations.
Trade name: Potassium Iodide, 50% w/v

Other hazards: There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- Chemical characterization: Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5 Water</td>
<td>40-60%</td>
</tr>
<tr>
<td>144-55-8 Sodium hydrogen carbonate</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>1310-58-3 Potassium hydroxide</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>497-19-8 Sodium carbonate</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>7681-11-0 Potassium iodide</td>
<td>40-60%</td>
</tr>
</tbody>
</table>

Additional information:
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

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. If experiencing respiratory symptoms: Call a doctor.
  - After skin contact:
    Wash with soap and water. If skin irritation is experienced, consult a doctor.
  - After eye contact:
    Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing:
    Rinse out mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention.
  - Most important symptoms and effects, both acute and delayed:
    Gastric or intestinal disorders when ingested. Nausea in case of ingestion.
  - Danger:
    Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.
  - Indication of any immediate medical attention and special treatment needed:
    If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures
**50.1.3**

- **Extinguishing media**
  - **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
  - **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**
  During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
  - **Protective equipment:**
    Wear self-contained respiratory protective device.
    Wear fully protective suit.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Ensure adequate ventilation.
  For large spills, wear protective clothing.
  For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **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).
  Send for recovery or disposal in suitable receptacles.
- **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.

### 7 Handling and storage

- **Handling**
  - **Precautions for safe handling:**
    Prevent formation of aerosols.
    Avoid splashes or spray in enclosed areas.
    Use only in well ventilated areas.
  - **Information about protection against explosions and fires:** No special measures required.
  - **Conditions for safe storage, including any incompatibilities**
    - **Requirements to be met by storerooms and receptacles:** No special requirements.
    - **Information about storage in one common storage facility:**
      Store away from foodstuffs.
      Do not store together with oxidizing and acidic materials.
  - **Further information about storage conditions:**
    Keep containers tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
  - **Specific end use(s)** No relevant information available.

### 8 Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7681-11-0 Potassium iodide</td>
<td>TLV (USA): NIC-0.015 mg/m³, (0.01*) ppm NIC-Skin; *inhalable fraction &amp; vapor **inhal.;</td>
</tr>
<tr>
<td>1310-58-3 Potassium hydroxide</td>
<td>REL (USA): Ceiling limit value: 2 mg/m³ TLV (USA): Ceiling limit value: 2 mg/m³ EL (Canada): Ceiling limit value: 2 mg/m³ EV (Canada): Ceiling limit value: 2 mg/m³ LMPE (Mexico): Ceiling limit value: 2 mg/m³</td>
</tr>
</tbody>
</table>

Exposure controls

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Engineering controls: Provide adequate ventilation.

Breathing equipment:
Not required under normal conditions of use. Use suitable respiratory protective device when aerosol or mist is formed.

Protection of hands:

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:

9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance:
Form: Liquid
Color: Clear, colorless
Odor: Odorless
Odor threshold: Not determined.
Trade name: Potassium Iodide, 50% w/v

- **pH-value:** Not determined.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** >100 °C (>212 °F)
- **Flash point:** The product is not flammable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits**
  - Lower: Not determined.
  - Upper: Not determined.
- **Oxidizing properties:** Not determined.
- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)
- **Density at 20 °C (68 °F):** 2.07 g/cm³ (17.27 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not determined.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Other information**
  - No relevant information available.

### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
  - Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**
  - No relevant information available.
- **Incompatible materials**
  - No relevant information available.
- **Hazardous decomposition products**
  - Under fire conditions only:
    - Halogen gases.
    - Corrosive gases/vapors
    - Carbon monoxide and carbon dioxide
    - Nitrogen oxides (NOx)
Trade name: Potassium Iodide, 50% w/v

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      - 7681-11-0 potassium iodide
        - Oral LD50 3,118 mg/kg (rat)
  - Primary irritant effect:
    - On the skin: Based on available data, the classification criteria are not met.
    - On the eye: Based on available data, the classification criteria are not met.
    - Sensitization: Based on available data, the classification criteria are not met.
  - IARC (International Agency for Research on Cancer):
    - None of the ingredients are listed.
  - NTP (National Toxicology Program):
    - None of the ingredients are listed.
  - OSHA-Ca (Occupational Safety & Health Administration):
    - None of the ingredients are listed.
  - Probable route(s) of exposure:
    - Ingestion.
    - Inhalation.
    - Eye contact.
    - Skin contact.
  - Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.
  - Repeated dose toxicity:
    - Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
  - Carcinogenicity: Based on available data, the classification criteria are not met.
  - Reproductive toxicity: Based on available data, the classification criteria are not met.
  - STOT-single exposure: Based on available data, the classification criteria are not met.
  - Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No relevant information available.
  - Persistence and degradability: No relevant information available.
  - Bioaccumulative potential: No relevant information available.
  - Mobility in soil: No relevant information available.
- Additional ecological information
  - General notes:
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - Other adverse effects: No 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.
  The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
  
  **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
  
  DOT, ADR/RID/ADN, IMDG, IATA Not regulated.

- **UN proper shipping name**
  
  DOT, ADR/RID/ADN, IMDG, IATA Not regulated.

- **Transport hazard class(es)**
  
  DOT, ADR/RID/ADN, IMDG, IATA
  
  **Class** Not regulated.

- **Packing group**
  
  DOT, ADR/RID/ADN, IMDG, IATA Not regulated.

- **Environmental hazards**
  
  Not applicable.

- **Special precautions for user**
  
  Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  
  Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  
  - United States (USA)
  - SARA

  **Section 302 (extremely hazardous substances):**
  
  None of the ingredients are listed.

  **Section 313 (Specific toxic chemical listings):**
  
  None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act)**
  
  7681-11-0 potassium iodide
  
  1310-58-3 Potassium hydroxide
Trade name: Potassium Iodide, 50% w/v

(Cont’d. of page 7)

| 497-19-8 Sodium carbonate |
| 144-55-8 Sodium hydrogencarbonate |
| 7732-18-5 Water |

Proposition 65 (California)

- **Chemicals known to cause cancer:**
  None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity for females:**
  None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity for males:**
  None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**
  None of the ingredients are listed.

- **EPA (Environmental Protection Agency):**
  None of the ingredients are listed.

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

- **Canadian Domestic Substances List (DSL):**
  None of the ingredients are listed.

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.

**Abbreviations and acronyms:**
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- OSHA: Occupational Safety & Health Administration
- Met. Corr.1: Corrosive to metals – Category 1
  Acute Tox. 4: Acute toxicity – Category 4
  Skin Corr. 1A: Skin corrosion/irritation – Category 1A
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

**Sources**
- Website, European Chemicals Agency (echa.europa.eu)
- Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
- Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
- Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

(Cont’d. on page 9)
Trade name: Potassium Iodide, 50% w/v

ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com