1. Identification

**Product Name:** pH 4 Buffer Solution  
**Synonyms:** NONE  
**CAS Number:** N/A  
**Product Use:** Prevent changes in the pH of a solution.  
**Manufacturer/Supplier:** Rosemount Analytical Inc  
**Address:** 2400 Barranca Parkway, Irvine Ca 92606

**General Information:** Part number 905-3506  
**Transportation Emergency Number:** CHEMTREC: 800-424-9300

2. Hazards Identification

**GHS Classification:**

Skin irritation (Category 3)  
Eye irritation (Category 2A)

**GHS Label elements, including precautionary statements**

Pictogram

Signal word warning  
Hazard statement(s)  
H303 May be harmful if swallowed

Precautionary statement(s)  
P261 Avoid breathing vapor.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P273: Avoid release to the environment
Other hazards

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydrogen Phthalate</td>
<td>877-24-7</td>
<td>1</td>
</tr>
<tr>
<td>Non-hazardous ingredients (deionized water)</td>
<td>-</td>
<td>99</td>
</tr>
</tbody>
</table>

(See Section 8 for Exposure Limits)

4. First Aid Measures

Eye: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. If irritation, redness, or burning sensation develops and persist, obtain medical advice. Wash contaminated clothing before reuse.

Inhalation: Nasal irritation, headache, dizziness, nausea, vomiting, heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do not induce vomiting unless directed by medical personnel.

5. Fire Fighting Measures

Conditions of flammability: Not flammable or combustible
**Suitable extinguishing media:** Use water spray, alcohol resistant foam, dry chemical or carbon dioxide

**Fire Fighting Procedures:** Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing

**Unusual Fire and Explosion Hazards:** N data available

---

### 6: Accidental Release Measures

**Personal Precaution**

Keep unnecessary people away; isolate area. Use safety glasses. Keep are ventilated and soak up spill with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials (Also see Section 8)

Do not flush to sewer or waterways. Prevent release to the environment if possible. Refer to Section 15 for spill/release reporting information.

---

### 7. Handling and Storage

**Precaution for safe handling**

Do not get in eyes, on skin. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation.

**Hygiene**

Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use.

**Storage**

Keep containers closed and upright when not in use. Protect against physical damage.

Incompatible materials: None Known
8. Exposure Controls / Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TLV (STEL)</th>
<th>OSHA PEL TWA</th>
<th>STEL</th>
<th>NIOSH REL TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydrogen Phthalate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Engineering Controls: Local exhaust ventilation may be necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces.

Personal Protective Equipment (PPE)

**Eye Protection:** Wear chemical safety goggles, face shield or safety glasses. Have eye-wash stations available where eye contact can occur.

**Skin Protection:** Avoid skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area. Wear impervious gloves such as nitrile, minimum thickness 0.11 mm

**Respiratory Protection:** Respiratory protection is not needed

9. Physical and Chemical Properties

**Flashpoint:** No data available

**Auto ignition Temperature:** any data available
**Boiling Point:** 100°C (212° F) @ 760 mm Hg
**Freezing/melting Point:** - No data available
**Vapor Pressure (MMHG):** 24
**Vapor Density (Air=1):** 1.0
**% Solubility in Water:** Aqueous solution
**Pour Point:** NA
**Molecular Formula:** Mixture
**Odor/Appearance:** clear or green solution, odorless
**Lower Flammability Limit:** No data available
**Upper Flammability Limit:** No data available
**Specific Gravity:** 1
**% Volatile:** 99+
**Evaporation Rate:** slow (Water=1): (Butyl Acetate =1): 1
**Viscosity:** No data available
**Octanol/Water Partition Coefficient:** No data available
**pH:** 4
**Molecular Weight:** Mixture

---

**10. Stability and Reactivity**

**Stability:** Stable under normal conditions

**Hazardous Reactions/Decomposition Products:** Carbon oxide, Potassium oxides. Other decomposition products-No data available

**Material to avoid**

Strong oxidizing agents

---

**11. Toxicological Information**

Signs and Symptoms of Overexposure: Eye and nasal irritation, headache, dizziness, nausea, vomiting, heart palpitations, difficulty breathing, cyanosis, tremors, weakness, itching or burning of the skin.

**Acute Effects:**
Not classified

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral rat</th>
<th>≥3,200 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydrogen Phthalate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation:** No data available

**Serious eye damage/Irritation:** No data available

**Respiratory or Skin sensitisation:** No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No components of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC

**ACGIH:** No components of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC

**Reproductive Toxicity:** No data available

**Teratogenicity:** No data available

**Specific target Organ toxicity-single exposure (Globally Harmonized System):** No data available

**Specific target Organ toxicity-repeated exposure (Globally Harmonized System):** No data available

**Aspiration Hazard:** No data available

**Potential Adverse human health effects and systems:**

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation

**Ingestion:** May be harmful if swallowed

**Skin:** May be harmful if absorbed through the skin. May cause skin irritation

**Eyes:** May cause eye irritation

**Signs and symptoms of exposure:** Nausea, vomiting, to the best of our knowledge, the chemical, physical and toxicological properties has not been thoroughly investigated.

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

12. Ecological Information
Not Available
Bioaccumulation is not expected to be significant. This product is readily biodegradable.

13. Disposal Considerations
Product: Dispose in a safe manner in accordance with local/national regulations
Contaminated packaging: Dispose in a safe manner in accordance with local/national regulations

14. Transport Information
U.S. Department of Transportation (DOT)
Proper Shipping Name: NA. Does not meet dangerous goods criteria
International Maritime Organization (IMDG)
Proper Shipping Name: NA. Does not meet dangerous goods criteria

International Air Transportation Association (IATA):
Proper Shipping Name: NA. Does not meet dangerous goods criteria

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR):
NA. Does not meet dangerous goods criteria

15. Regulatory Information
U.S. Federal Regulations
Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):
Toxic Substances Control Act (TSCA): This product does not contain a substance listed under TSCA
Clean Water Act (CWA): Potassium hydrogen Phthalate

Clean Air Act (CAA): This product does not contain hazardous substance under the Clean Air Act.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories: No Listed ingredients
Immediate Hazard: X
Delayed Hazard: X
Fire Hazard: X
Pressure Hazard: X
Reactivity Hazard: X

State Regulations

California Proposition 65: This product does not contains chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm isopropyl alcohol

Component CAS Number Maximum %
NA

International Regulations

Canadian Environmental Protection Act: This product contains a component, Potassium hydrogen Phthalate which is included on the Canadian Domestic Substances list (DSL). Class D Division 2 Subdivision B-Toxic material causing other toxic effects

EU-Regulations

No additional information available

This product has been classified in accordance with the hazard criteria of the Controlled Products
Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. Other Information

Health: 0
Flammability: 0
Reactivity: 0
Special: None

Protective equipment: B; Safety glasses, gloves

Revision Date: 02-27-14

SDS prepared by:

Julien C. Ollivierre

Rosemount Analytical Inc.

Telephone: (949) 757-8651 U.S.A

Supersedes: 07-13-13

Disclaimer: The information contained herein is accurate to the best of our knowledge. My Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.