Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

SDS # MEL-001-EU
Product Name HYDRION BUFFER pH-4.00
Molecular weight Potassium Biphthalate 204.2 grams

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use For preparation of buffer standards in distilled water

1.3. Details of the Supplier of the Safety Data Sheet

Supplier MICRO ESSENTIAL LABORATORY, INC
PO BOX 100824, 4224 AVENUE H
BROOKLYN, NY  11210

For further information, please contact

Contact Point Micro Essential Laboratory Inc. 718-338-3618
Email Address custserv@microessentiallab.com

1.4. Emergency telephone number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label Elements

Product Identifier Present
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Signal Word None

2.3. Other Hazards

No information available
Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>REACH Registration Number</th>
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</thead>
<tbody>
<tr>
<td>Potassium Biphthalate</td>
<td>Present</td>
<td>877-24-7</td>
<td>100</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Full text of H- and EUH-phrases: see section 16
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

**Skin Contact**
Wash affected areas thoroughly with soap and water for at least 15 minutes. Get medical attention if necessary.

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Get medical attention if necessary.

**Ingestion**
Drink plenty of water. Do not induce vomiting without medical advice. Get medical attention if necessary.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

**Symptoms**
Dust may be irritating to eyes. Prolonged skin contact may cause skin irritation or allergic reaction. Ingestion can irritate stomach and cause mouth burns. Prolonged exposure by inhalation may cause irritation of the nose, throat and respiratory tract. Prolonged exposure to BULK POWDER may cause irritation to the eyes, skin and respiratory system.

4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

**Notes to Physician**
Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
Not determined.

5.2. Special Hazards Arising from the Substance or Mixture
Non-flammable.

5.3. Advice for Firefighters
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required. Do not release runoff from fire control methods to sewers or waterways.
Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions
Use personal protective equipment as required. Keep unnecessary people away, isolate hazard area and deny entry. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only.

For Emergency Responders
Use personal protection recommended in Section 8.

6.2. Environmental Precautions
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

6.3. Methods and Material for Containment and Cleaning Up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up
For small spills: Wipe up product and rinse affected area with water. For slightly larger spills: Carefully sweep or scoop up spilled material into a large beaker and dissolve with water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Flush reacted material to the drain with a large excess of water if permitted by local regulations. Decontaminate the area of the spill with a soap solution. For very large spills: dike far ahead of liquid spill for later disposal in suitable containers.

6.4. Reference to Other Sections
See Section 13: DISPOSAL CONSIDERATIONS.

Section 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Do not breathe dust. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling. Do NOT take internally. The following precautions pertain only to BULK POWDER handling:

Ventilation: Use adequate general or local ventilation to keep fume and dust levels as low as possible

Respiratory Protection: Use approved dust respirator when handling bulk powder

Eye Protection: Chemical splash goggles with side shields when handling bulk powder

Gloves: Natural rubber, butyl neoprene or equivalent. Wear full cover clothing when handling bulk powder.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

7.2. Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Avoid excessive temperatures & high humidity.

7.3. Specific End Use(s)

Specific Use(s)
For preparation of buffer standards in distilled water.

Risk Management Methods (RMM)
The information required is contained in this Safety Data Sheet.
Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2. Exposure Controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers. Local exhaust ventilation recommended.

Personal Protective Equipment

Eye/Face Protection
Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations and standards. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

Hand Protection
Use chemical resistant gloves for prolonged skin contact.

Skin and Body Protection
Gloves and protective clothing should be worn to prevent prolonged skin contact.

Respiratory Protection
Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. WARNING! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>Non-flammable</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
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<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
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<td></td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
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</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour Density</td>
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</tr>
<tr>
<td>Relative Density</td>
<td>~1</td>
<td>@ 60°F (ASTM D 1298)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible in water</td>
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</tr>
<tr>
<td>Solubility(ies)</td>
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<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
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<td></td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

9.2. Other information

Molecular weight
Potassium Biphthalate 204.2 grams
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Not reactive under normal conditions.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of Hazardous Reactions

Hazardous Polymerisation
Hazardous polymerisation does not occur.

 Possibility of Hazardous Reactions
See below - Incompatible Materials.

10.4. Conditions to Avoid
Keep out of reach of children.

10.5. Incompatible Materials
Hazardous reaction in aqueous solution may occur with chlorine, hypochlorous acid, hypochlorites, cyanides or sulfides.

10.6. Hazardous Decomposition Products
May emit toxic fumes of phosphorous oxide.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute toxicity

Product Information

Inhalation
Avoid inhalation of dust.

Eye Contact
Avoid contact with eyes.

Skin Contact
Avoid contact with skin.

Ingestion
May be harmful if swallowed.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 3,203.20 mg/kg

Unknown Acute Toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Biphthalate</td>
<td>&gt; 3200 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Not classified.

Serious eye damage/eye irritation
Not classified.
Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

12.2. Persistence and Degradability
Not determined.

12.3. Bioaccumulative Potential
There is no data for this product.

12.4. Mobility in Soil
Mobility
Not determined.

12.5. Results of PBT and vPvB Assessment
Not determined.

12.6. Other Adverse Effects
Not determined.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods
Waste from residues/unused products
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG
14.2 Proper Shipping Name
Not regulated

RID
14.2 Proper Shipping Name
Not regulated

ADR
14.2 Proper Shipping Name
Not regulated

IATA
Section 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>AICS</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Biphthalate 877-24-7 (100)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under section 3
Not applicable

Legend
SVHC: Substances of Very High Concern for Authorisation:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Legend
TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Skin designation

Classification Procedure
Calculation method

Issue Date: 15-Feb-2012
Revision Date: 12-Aug-2019
Revision Note: Regulatory review.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2015/830
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet