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

1.1. Product Identifier

SDS #   MEL-003-EU
Product Name HYDRION BUFFER pH-10.00
Contains Sodium carbonate
Molecular weight
  Sodium Carbonate 105.99 grams
  Sodium Bicarbonate 84.01 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

<table>
<thead>
<tr>
<th>Acute toxicity - Inhalation (Dusts/Mists)</th>
<th>Category 4 - (H332)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2 - (H319)</td>
</tr>
</tbody>
</table>

2.2. Label Elements

Product Identifier Contains Sodium carbonate

Signal Word Warning
Hazard statements
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection/ face protection
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

2.3. Other Hazards
No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>Present</td>
<td>497-19-8</td>
<td>50-70</td>
<td>Eye Irrit. 2 (H319)</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
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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. Call a poison center or doctor/physician if you feel unwell.

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. The eye irritation may be severe. 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
Cover spilled material with a dry acid, such as Citric or Boric. Scoop up into a large beaker. Adjust pH between 6 and 9 with a diluted acid, such as Sulfuric or Citric. Flush reacted material to the drain with a large excess of water but ONLY if permitted by local authorities and regulations. If not permitted, must be disposed of as a hazardous waste.

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>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>White to off white Granules, crystals or powder</td>
<td>Odour</td>
</tr>
<tr>
<td>Colour</td>
<td>White to off white</td>
<td>Odour Threshold</td>
</tr>
<tr>
<td>pH</td>
<td>10.00</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>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>
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 strong acid, aluminum, fluorine, phosphorus pentoxide and ammonium phosphate monobasic.

10.6. Hazardous Decomposition Products  
Toxic fumes of carbon monoxide or irritant smoke.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects  
Acute toxicity

Product Information

Inhalation  Harmful if inhaled.
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

<table>
<thead>
<tr>
<th>ATEmix (oral)</th>
<th>4,141.00 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix (inhalation-dust/mist)</td>
<td>2.50 mg/L</td>
</tr>
</tbody>
</table>

**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>Sodium carbonate</td>
<td>= 4090 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>= 4220 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Not classified.

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Sensitisation**
Not classified.

**Germ cell mutagenicity**
Not classified.

**Carcinogenicity**
Not classified.

**Reproductive toxicity**
Not classified.

**STOT - single exposure**
Not classified.

**STOT - repeated exposure**
Not classified.

**Aspiration hazard**
Not classified.

---

### Section 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity
This product can be harmful or fatal to contaminated aquatic plant or animal life, especially if released in a large quantity in a body of water.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>242: 120 h Nitzschia mg/L EC50</td>
<td>300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static</td>
<td>265: 48 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

#### 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
14.2  Proper Shipping Name  Not regulated

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>Sodium carbonate 497-19-8 (50-70)</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>
<tr>
<td>Sodium Bicarbonate 144-55-8 (30-50)</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
H319 - Causes serious eye irritation

Legend
SVHC: Substances of Very High Concern for Authorisation:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Legend</th>
<th>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>TWA (time-weighted average)</td>
</tr>
<tr>
<td>Ceiling</td>
<td>Maximum limit value</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
</tr>
<tr>
<td></td>
<td>STEL (Short Term Exposure Limit)</td>
</tr>
<tr>
<td></td>
<td>Skin designation</td>
</tr>
</tbody>
</table>

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