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Version 1

1. IDENTIFICATION**Product Identifier****Product Name** HYDRION BUFFER pH-2.00**Other means of identification****SDS #** MEL-010**Recommended use of the chemical and restrictions on use****Recommended Use** For preparation of buffer standards in distilled water.**Details of the supplier of the safety data sheet****Supplier Address**MICRO ESSENTIAL LABORATORY, INC
PO BOX 100824, 4224 AVENUE H
BROOKLYN, NY 11210**Emergency Telephone Number****Company Phone Number** PHONE: 718-338-3618 FAX: 718-692-4491 (8:00AM TO 4:00PM EASTERN STANDARD TIME)**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)**2. HAZARDS IDENTIFICATION****Appearance** White to off white Granules, crystals or powder**Physical State** Solid**Odor** Odorless**Classification**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

Signal Word

Warning

Hazard StatementsCauses skin irritation
Causes serious eye irritation

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

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
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse

Other Hazards

Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium Biphthalate	877-24-7	60-70
Sulfamic acid	5329-14-6	30-40

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Skin Contact	Take off contaminated clothing. Wash affected areas thoroughly with soap and water for at least 15 minutes. If skin irritation occurs: Get medical advice/ attention.
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.

Most important symptoms and effects

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.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Non-flammable.

Hazardous Combustion Products Sulfur Trioxide, Sulfur dioxide, Ammonia.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not release runoff from fire control methods to sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES**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 Follow applicable OSHA regulations (29 CFR 1910.120).

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

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.

7. HANDLING AND STORAGE**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. 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 NIOSH 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. 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.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.
- Skin and Body Protection** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated 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. If respirators are used, OSHA requires a written respiratory program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
- 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid		
Appearance	White to off white Granules, crystals or powder	Odor	Odorless
Color	White to off white	Odor Threshold	Not determined

Property	Values	Remarks • Method
pH	2.00	@ 25 °C (77 °F)
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Non-flammable	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	

Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	~1	(1=Water) @ 4°C
Water Solubility	Miscible in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Molecular weight	Sulphamic acid 97 grams	
	Potassium Biphthalate 204.2 grams	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

See below - Incompatible Materials.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

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

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Causes skin irritation.

Inhalation Avoid inhalation of dust.

Ingestion May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Biphthalate 877-24-7	> 3200 mg/kg (Rat)	-	-
Sulfamic acid 5329-14-6	= 1450 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfamic acid 5329-14-6		14.2: 96 h Pimephales promelas mg/L LC50 static		

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

<u>Note</u>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
<u>DOT</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u> Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfamic acid 5329-14-6	X		

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	0	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	0	0	Not determined

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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