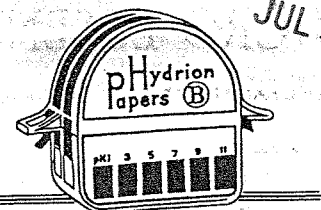


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JUL 18 1994

# MICRO ESSENTIAL LABORATORY INC.

MANUFACTURERS OF HYDRION pH PAPERS AND HYDRION pH BUFFERS



4224 AVENUE H

BROOKLYN

NEW YORK 11210

718-338-3618-9

## SAFETY INFORMATION

FOR

HYDRION BUFFER SALT pH 7.00

HYDRION BUFFER SALTS pH 7.00 THROUGH 7.90 IS A MIXTURE OF SALTS THAT ARE NON-HAZARDOUS WHEN HANDLED AND USED ACCORDING TO OUR DIRECTIONS.

HYDRION BUFFERS ARE MANUFACTURED AND FORMULATED FOR LABORATORY USE ONLY AND REQUIRE NO SPECIAL HANDLING, LABELLING OR MARKINGS. HYDRION BUFFERS ARE NOT TO BE TAKEN INTERNALLY.

OUR BUFFER PRODUCTS ARE SAFE FOR SHIPMENT BY AIR, SEA OR GROUND TRANSPORTATION.

THESE PRODUCTS CONSIST OF STABLE, NON-REACTIVE, NON-FLAMMABLE, NON-VOLATILE AND NON-RADIOACTIVE MATERIALS.

IN CASE OF SPILLAGE SWEEP UP AREA AND PLACE IN CLEAN CONTAINER. IF PREPARED BUFFER SOLUTION IS SPILLED, NEUTRALIZE AND MOP AND WASH AREA. DISPOSE ALL WASTE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

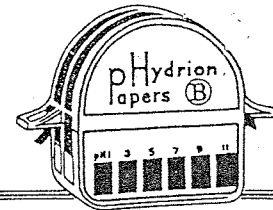
THE COMPOSITION OF OUR HYDRION pH 7.00 THROUGH 7.90 BUFFER SALTS ARE MIXTURES OF POTASSIUM PHOSPHATE AND SODIUM PHOSPHATE, DIBASIC.

ATTACHED PLEASE FIND MATERIAL SAFETY DATA SHEETS (SIMILAR TO OSHA FORM 20) FOR THE ABOVE MENTIONED CHEMICALS. THESE CHEMICALS ARE ESSENTIALLY NON-HAZARDOUS WHEN USED ACCORDING TO OUR INSTRUCTIONS FOR PREPARATION OF BUFFER SOLUTIONS. KINDLY REFER TO THE ATTACHED SAFETY SHEETS FOR ALL HANDLING, SAFETY AND DISPOSAL REQUIREMENTS BEFORE USING OUR BUFFER SALTS.

ATTACHED: MATERIAL SAFETY DATA SHEETS FOR POTASSIUM PHOSPHATE AND SODIUM PHOSPHATE, DIBASIC.

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## MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA—174 SEPT. 1985

PAGE 1 OF 3.

### Section I — Product Information

EMERGENCY TELEPHONE - 718-338-3618

DATE PREPARED - AUGUST 7th, 1991

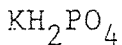
TELEPHONE NUMBER FOR INFORMATION - SAME AS ABOVE

TRADE NAME: HYDRION BUFFER SALTS pH 5.0 THROUGH 8.00 and pH 12.00

CHEMICAL NAME & SYNONYMS: POTASSIUM PHOSPHATE, MONOBASIC or POTASSIUM DIHYDROGEN PHOSPHATE

CHEMICAL FAMILY: INORGANIC SALT

FORMULA



CAS NUMBER

7778-77-0

FORMULA WEIGHT

136.09 grams

### Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
POTASSIUM PHOSPHATE MONOBASIC IS A NON-HAZARDOUS SUBSTANCE. (MSDS NOT REQUIRED)				NONE ESTABLISHED

### Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O=1)	2.34
Vapor Pressure (mm Hg.)	N/A	Melting Point	400 °C
Vapor Density (AIR=1)	N/A	Evaporation Rate (Butyl Acetate=1)	N/A
Solubility in Water	18% BY WEIGHT AT 20 °C		
Appearance and Odor	COLORLESS, ODORLESS GRANULAR OR CRYSTALLINE POWDER		

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NON-FLAMMABLE		N/A	N/A

Extinguishing Media

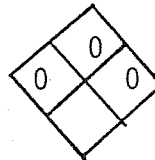
USE ANY SUITABLE MEDIA FOR SURROUNDING MEDIA

Special Fire Fighting Procedures

NONE REQUIRED

Unusual Fire and Explosion Hazards

NONE



NFPA

**Section V — Reactivity Data**

Stability	Unstable	Conditions to Avoid	NONE
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Stable VERY STABLE

Incompatibility (Materials to Avoid) NONE

Hazardous Decomposition or Byproducts NONE

Hazardous Polymerization	May Occur	Conditions to Avoid	NONE
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Will Not Occur WILL NOT OCCUR

**Section VI — Health Hazard Data**

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: NO HARMFUL EFFECTS INDICATED FROM AVAILABLE INFORMATION.

Contact with skin or eyes: NO HARMFUL EFFECTS INDICATED FROM AVAILABLE INFORMATION.  
PROLONGED SKIN CONTACT COULD CAUSE SKIN IRRITATION OR ALLERGIC REACTION.

Absorbed through skin: NO HARMFUL EFFECTS INDICATED FROM AVAILABLE INFORMATION.

Swallowed: NO HARMFUL EFFECTS INDICATED FROM AVAILABLE INFORMATION.

HEALTH EFFECTS OR RISKS FROM EXPOSURE. Explain in lay terms. Attach extra page if more space is needed.

Acute: NO HARMFUL EFFECTS INDICATED FROM AVAILABLE INFORMATION.

Chronic: PROLONGED SKIN CONTACT WITH BULK POWDER HANDLING COULD  
CAUSE SKIN IRRITATION OR ALLERGIC REACTION.

Carcinogenicity:	NTP?	IARC Monographs?	Osha Regulated?
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NOT CARCINOGENIC

FIRST AID: EMERGENCY PROCEDURES GET MEDICAL ASSISTANCE IF ANY ADVERSE EFFECTS SHOULD DEVELOP.

Eye Contact: FLUSH THOROUGH WITH COLD WATER.

Skin Contact: WASH WITH SOAP AND COLD WATER.

Inhaled: REMOVE TO FRESH AIR.

Swallowed: IF CONSCIOUS INDUCE VOMITING.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE PROLONGED SKIN CONTACT WITH BULK  
POWDER HANDLING COULD CAUSE SKIN IRRITATION OR ALLERGIC REACTION.

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**Section VII — Precautions for Safe Handling and Use**


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**Steps to Be Taken in Case Material is Released or Spilled**

SWEEP POWDER INTO CONTAINER. CLEAN SPILL AREA WITH WATER.  
IF PREPARED BUFFER SOLUTION IS SPILLED NEUTRALIZE AND MOP AREA.

**Water Disposal Method**

NEUTRALIZE BUFFER SOLUTIONS BEFORE DISPOSAL. DISPOSE AT  
APPROVED "SITE".

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

**Precautions to Be Taken in Handling and Storing**

AS MATERIAL IS HYGROSCOPIC STORE IN COOL DRY PLACE WITH CONTAINER  
TIGHTLY CLOSED.

**Other Precautions**

NONE

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**VII — SPECIAL HANDLING INFORMATION**


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\*\*\* PERTAINS ONLY TO BULK POWDER HANDLING \*\*\*

**Ventilation and engineering controls**

USE ADEQUATE GENERAL OR LOCAL VENTILATION TO KEEP FUME AND DUST  
LEVELS AS LOW AS POSSIBLE.

Respiratory protection (type) NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS  
EXIST. IF AIRBOURNE DUST CONCENTRATION IS HIGH USE APPROPRIATE  
NIOSH APPROVED DUST RESPIRATOR.

**Eye protection (type)**

SAFETY GLASSES WITH SIDE SHIELDS.

Gloves (specify material) NAUTRAL RUBBER, BUTYL, NEOPRENE OR EQUIVALENT.

Other clothing and equipment FULL COVER CLOTHING.

Work practices, hygienic practices DO NOT BREATHE DUST. DO NOT GET IN EYES.  
AVOID PROLONGED OR REPEATED SKIN CONTACT. WASH WITH COLD  
WATER AFTER USE. DO NOT TAKE INTERNALLY.

**Other handling and storage requirements**

STORE AT CONTROLLED ROOM TEMPERATURE IN DRY LOCATIONS.

**Protective measures during maintenance of contaminated equipment.**

WEAR FULL COVER CLOTHING SAFETY GOGGLES, DUST RESPIRATOR  
AND GLOVES WHEN EXPOSED TO BULK POWDER HANDLING.

\*\*NOTE N/A = NOT APPLICABLE OR NOT AVAILABLE.

The data in this Material Safety Data Sheet relates only to the material designated herein and does not relate to use in combination with any other material that is not supplied by Micro Essential Laboratory as a buffer salt. The statements contained herein are offered for informational purposes only and is based on technical data that Micro Essential Laboratory believes to be reliable. The information and data are intended to be followed only by persons with technical skills and at their own discretion and risk. Since conditions are outside our control, we make no warranties, express or implied and assume no liability in connection with any use of this information. We reserve the right to revise this safety sheet from time to time.