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.
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: \( \text{KH}_2\text{PO}_4 \)

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
Vapor Pressure (mm Hg.): N/A
Vapor Density (AIR=1): N/A
Solubility in Water: 18% by weight at 20°C
Appearance and Odor: COLORLESS, ODORLESS GRANULAR OR CRYSSTALLINE POWDER

Specific Gravity (H_2O=1): 2.34
Melting Point: 400°C
Evaporation Rate
(Butyl Acetate=1): N/A
Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) NON-FLAMMABLE
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
Stable VERY STABLE
Incompatibility (Materials to Avoid) NONE
Hazardous Decomposition or Byproducts NONE
Hazardous Polymerization May Occur Conditions to Avoid NONE
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.
Absorbed through skin: PROLONGED SKIN CONTACT COULD CAUSE SKIN IRRITATION OR ALLERGIC REACTION.
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.

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.
Section VII — Precautions for Safe Handling and Use

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

VII — SPECIAL HANDLING INFORMATION

*** 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)  NATURAL 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.