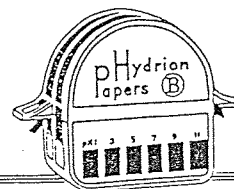


MICRO ESSENTIAL LABORATORY INC.

MANUFACTURERS OF HYDRION pH PAPERS AND HYDRION pH BUFFERS



4224 AVENUE H

BROOKLYN

NEW YORK 11210

718-338-3618-9

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 5.00 THROUGH 8.00

CHEMICAL NAME & SYNONYMS:

SODIUM PHOSPHATE, DIBASIC, ANHYDROUS OR DISODIUM PHOSPHATE

CHEMICAL FAMILY:

INORGANIC SALT

FORMULA

CAS NUMBER

FORMULA WEIGHT

Na_2HPO_4

7558-79-4

141.96 grams

NIOSH/RETECS # WC4500000

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))

OSHA PEL

ACGIH TLV

Other Limits
Recommended

% (optional)

NOT APPLICABLE

NOT ESTABLISHED

TXDS:

scu-rat LDLo-

1000 mg/kg

ivn-dog LDLo-

298 mg/kg

Section III — Physical/Chemical Characteristics

Boiling Point

N/A

Specific Gravity ($\text{H}_2\text{O}=1$)

1.62

Vapor Pressure (mm Hg.)

N/A

Melting Point

N/A

Vapor Density (AIR=1)

4.9

Evaporation Rate

N/A

(Butyl Acetate=1)

Solubility in Water

11% BY WEIGHT AT 20°C

Appearance and Odor

WHITE ODORLESS GRANULAR POWDER

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	NON FLAMMABLE	Flammable Limits	LEL N/A	UEL N/A
Extinguishing Media	USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE			
Special Fire Fighting Procedures	WEAR PROTECTIVE EQUIPMENT AND SELF CONTAINED BREATHING APPARATUS. MOVE EXPOSED CONTAINERS FROM FIRE AREA. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.			
Unusual Fire and Explosion Hazards	CLOSED CONTAINERS EXPOSED TO HEAT MAY EXPLODE. PHOSPHORUS OXIDE WILL FORM WHEN EXPOSED TO HIGH TEMPERATURES.			

Section V — Reactivity Data

Stability	Unstable	Conditions to Avoid	ACIDS AND MOISTURE.
	Stable		STABLE
Incompatibility (Materials to Avoid)	ALKALOIDS, ANTIPYRINE, CHLORAL HYDRATE, LEAD ACETATE		
Hazardous Decomposition or Byproducts	TOXIC FUMES OF OXIDES AND PHOSPHORUS		
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: DUST MAY IRRITATE NOSE AND THROAT

Contact with skin or eyes: MAY CAUSE SEVERE IRRITATION AND BURNS WHEN EXPOSED TO HIGH CONCENTRATIONS.

Absorbed through skin: MAY CAUSE IRRITATION AND DERMATITIS

Swallowed: MAY RESULT IN INTESTINAL IRRITATION WITH BURNS TO THE MOUTH. ~~INGESTION MAY CAUSE NAUSEA AND VOMITING.~~

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

Acute: NOT DOCUMENTED

Chronic: MAY IRRITATE EYES AND NOSE, CAN CAUSE SKIN IRRITATION AND BURNS TO EYES. MAY RESULT IN INTESTINAL IRRITATION.

Carcinogenicity:	NTP?	IARC Monographs?	Osha Regulated?
------------------	------	------------------	-----------------

NOT DOCUMENTED AS A CARCINOGEN.

FIRST AID: EMERGENCY PROCEDURES

Eye Contact: FLUSH THOROUGHLY WITH COLD WATER FOR ABOUT 15 MINUTES AND GET MEDICAL ASSISTANCE.

Skin Contact: WASH WITH SOAP AND WATER. GET MEDICAL ASSISTANCE FOR PERSISTENT DERMATITIS.

Inhaled: REMOVE TO FRESH AIR. GET MEDICAL ASSISTANCE.

Swallowed: GET MEDICAL ASSISTANCE.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE MAY RESULT IN INTESTINAL IRRITATION IF SWALLOWED. MAY IRRITATE EYES, NOSE AND SKIN.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled WEAR SELF CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING IF DUST CONCENTRATION IS HIGH. PLACE MATERIAL INTO CLEAN DRY CONTAINER AND REMOVE FROM AREA. FLUSH SPILL AREA WITH WATER. IF PREPARED BUFFER SOLUTION IS SPILLED- NEUTRALIZE AND MOP AND WASH AREA.

Water Disposal Method

NEUTRALIZE PREPARED BUFFER SOLUTIONS AT DISCARD AT APPROVED SITE.

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

Precautions to Be Taken in Handling and Storing KEEP CONTAINER TIGHTLY CLOSED IN A DRY PLACE AT CONTROLLED ROOM TEMPERATURE. DO NOT GET INTO EYES, SKIN OR ON CLOTHING WASH THOROUGHLY AFTER HANDLING.

Other Precautions

VII — SPECIAL HANDLING INFORMATION

*** PERTAINS TO BULK POWDER HANDLING ***

Ventilation and engineering controls LOCAL EXHAUST AND OR MECHANICAL (GENERAL) VENTILATION TO KEEP FUME AND DUST LEVELS AS LOW AS POSSIBLE.

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

Eye protection (type) SAFETY GLASSES WITH SIDE SHIELDS.

Gloves (specify material) RUBBER, NEOPRENE OR EQUIVALENT.

Other clothing and equipment FULL COVER APPROVED WORK CLOTHES

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 TEMPERATURES IN DRY LOCATION DEPARTMENT OF TRANSPORTATION - HAZARDOUS CLASS ORM-E UN/NA - NA 9197

Protective measures during maintenance of contaminated equipment. WEAR FULL COVER CLOTHING, 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.