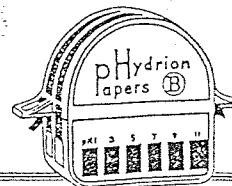


# MICRO ESSENTIAL LABORATORY INC.

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 10.00

HYDRION BUFFER SALT pH 10.00 THROUGH 10.90 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 OF ALL WASTE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

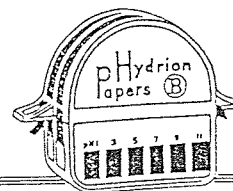
THE COMPOSITION OF OUR HYDRION BUFFER SALTS pH 10.00 THROUGH 10.90 ARE MIXTURES OF SODIUM CARBONATE AND SODIUM BICARBONATE.

ATTACHED PLEASE FIND MATERIAL SAFETY DATA SHEETS (SIMILAR TO OSHA FORM 174) 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 SODIUM CARBONATE AND SODIUM BICARBONATE.

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## MATERIAL SAFETY DATA SHEET

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

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### 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 10.00

CHEMICAL NAME & SYNONYMS: SODIUM BICARBONATE, BAKING SODA, SODIUM ACID CARBONATE

CHEMICAL FAMILY: CARBONATE HYDROGEN

INORGANIC SALT

FORMULA

CAS NUMBER

FORMULA WEIGHT

$\text{NaHCO}_3$

144-55-8

84.01 grams

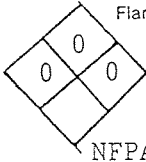
### Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
NOT APPLICABLE SODIUM BICARBONATE IS NON-HAZARDOUS	NOT ESTABLISHED	NOT ESTABLISHED	LD50 ORL-RAT: 4200 mg/kg	

### Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity ( $\text{H}_2\text{O}=1$ )	2.16
Vapor Pressure (mm Hg.)	N/A	Melting Point	270°C
Vapor Density (AIR=1)	N/A	Evaporation Rate (Butyl Acetate=1)	N/A
Solubility in Water	SOLUBLE in 10 PARTS WATER AT 25°C		
Appearance and Odor	WHITE ODORLESS CRYSTALLINE OR GRANULAR POWDER		

## Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	NON FLAMMABLE	 NFPA	Flammable Limits	LEL	UEL
Extinguishing Media	WATER			N/A	N/A
Special Fire Fighting Procedures	NONE				

Unusual Fire and Explosion Hazards

GIVES OFF CO<sub>2</sub> AT 50°C AND AT 100°C Na<sub>2</sub>CO<sub>3</sub>

## Section V — Reactivity Data

Stability	Unstable	Conditions to Avoid	CONTACT WITH ACIDS RELEASE CARBON DIOXIDE GAS.
	Stable		
Incompatibility (Materials to Avoid)	STABLE		
Hazardous Decomposition or Byproducts			REACTS VIOLENTLY WITH AMMONIUM PHOSPHATE MONOBASIC.
Hazardous Polymerization	May Occur	Conditions to Avoid	CARBON MONOXIDE
	Will Not Occur		NONE
			WILL NOT OCCUR

## Section VI — Health Hazard Data

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: MAY CAUSE IRRITATION TO THE NOSE AND THROAT.

Contact with skin or eyes: MAY CAUSE IRRITATION.

Absorbed through skin: MAY CAUSE SKIN IRRITATION.

Swallowed: CAN BE HARMFUL TO THE STOMACH IN LARGE DOSES.

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

Acute:

N/A

Chronic:

MAY CAUSE SKIN AND EYE IRRITATION.

Carcinogenicity:

NTP?

NONE ESTABLISHED

IARC Monographs?

Osha Regulated?

NO.

FIRST AID: EMERGENCY PROCEDURES

Eye Contact: FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. 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 CAUSE SKIN OR EYE IRRITATION.

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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 UP AND CONTAINERIZE FOR DISPOSAL. FLUSH SPILL AREA WITH WATER AND NEUTRALIZE. IF PREPARED BUFFER SOLUTION IS SPILLED, NEUTRALIZE AND WAS AREA WITH COLD WATER.

## Water Disposal Method

DISPOSE THROUGH APPROVED WASTE SITE OR WASTE TREATMENT PLANT.

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

## Precautions to Be Taken in Handling and Storing

STORE IN TIGHT, CLOSED CONTAINER AT CONTROLLED ROOM TEMPERATURE.

## Other Precautions

AVOID PROLONGED OR REPEATED SKIN CONTACT AND WASH THOROUGHLY AFTER HANDLING.

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VII — SPECIAL HANDLING INFORMATION

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\*\*\* PERTAIN TO BULK POWDER HANDLING \*\*\*

## Ventilation and engineering controls

ADEQUATE GENERAL OR FORCED VENTILATION.

## Respiratory protection (type)

NIOSH APPROVED RESPIRATOR FOR DUST.

## Eye protection (type)

SAFETY GOGGLES WITH SIDE SHIELDS.

## Gloves (specify material)

WEAR NIOSH APPROVED RUBBER GLOVES.

## Other clothing and equipment

FULL COVER CLOTHING.

## Work practices, hygienic practices

DO NOT BREATHE DUST. DO NOT GET INTO EYES. AVOID PROLONGED OR REPEATED SKIN CONTACT. WASH WITH COLD WATER AFTER USE. DO NOT TAKE INTERNALLY.

## Other handling and storage requirements

STORE AT ROOM TEMPERATURE AT DRY LOCATIONS.  
DOT - NOT REGULATED.

## Protective measures during maintenance of contaminated equipment.

WEAR PROTECTIVE CLOTHING, SAFETY GOGGLES, GLOVES AND RESPIRATOR DURING MAINTENANCE.

\*\*\* 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.