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, SWEET 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.
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 10.00
CHEMICAL NAME & SYNONYMS: SODIUM BICARBONATE, BAKING SODA, SODIUM ACID CARBONATE
CHEMICAL FAMILY: CARBONATE HYDROGEN
INORGANIC SALT
FORMULA: NaHCO₃  CAS NUMBER: 144-55-8
FORMULA WEIGHT: 84.01 grams

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))  OSHA PEL  ACGIH TLV  Other Limit  Recommended % (optional)

NOT APPLICABLE
SODIUM BICARBONATE
IS NON-HAZARDOUS

NOT
ESTABLISHED
ESTABLISHED
LD₅₀ ORL-RAT: 4200 mg/kg

Section III — Physical/Chemical Characteristics

Boiling Point  N/A
Vapor Pressure (mm Hg)  N/A
Vapor Density (AIR=1)  N/A
Solubility in Water  SOLUBLE in 10 PARTS WATER AT 25°C
Appearance and Odor  WHITE ODORLESS CRYSTALLINE OR GRANULAR POWDER

Specific Gravity (H₂O=1)  2.16
Melting Point  270°C
Evaporation Rate (Butyl Acetate=1)  N/A
Section IV — Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Flash Point (Method Used)</th>
<th>Non Flammable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extinguishing Media</td>
<td>Water</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>None</td>
</tr>
</tbody>
</table>

Unusual Fire and Explosion Hazards

- GIVES OFF CO₂ AT 50°C AND AT 100°C Na₂CO₃

Section V — Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stable</td>
<td>CONTACT WITH ACIDS RELEASE CARBON DIOXIDE GAS.</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)

- VIOLENTLY WITH AMMONIUM PHOSPHATE MONOBASIC.
- CARBON MONOXIDE

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?
- 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.
Section VII — Precautions for Safe Handling and Use

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 wash 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.

VII — SPECIAL HANDLING INFORMATION

*** 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.