



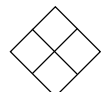
# MATERIAL SAFETY DATA SHEET

80 Northwest Boulevard  
Nashua, NH 03063  
1-800-225-3739

MSDS No.: BB0404 BBR404  
Effective Date: January 1, 2007

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Buffer Solution (pH 4)
<b>Chemical Synonyms</b>	Buffer Aqueous Solution
<b>Formula</b>	Mixture.
<b>Unit Size</b>	up to 20 Lt.
<b>C.A.S. No.</b>	Mixture.



**CHEMTREC**  
800-424-9300  
Day 585-226-6177

Health	0
Fire	0
Reactivity	0

**NFPA**

HAZARD RATING				
MINIMAL	SLIGHT	MODERATE	SERIOUS	SEVERE
0	1	2	3	4

**HMIS\***

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Potassium acid phthalate: (CAS No. 877-24-7)	0.718-1.079%	None established.
Sodium hydroxide: (CAS No. 1310-73-2)	0.195-0.158%	Ceiling: 2 mg/m <sup>3</sup> (Air)
Water: (CAS No. 7732-18-5)	Approx. 98%	None established.

**CAUTION! USE IN KEEPING WITH GOOD LABORATORY PRACTICES.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. 0°C (32°F)	Specific Gravity (H <sub>2</sub> O = 1)	1.0
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	98% +
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water = 1)	> 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear liquid; no odor. May contain red dye.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-combustible.	<b>Flammable Limits in Air % by Volume</b>	Lower	Upper
		N/A		
<b>Extinguisher Media</b>	Use any media suitable for extinguishing supporting fire.			

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution, which may cause hazardous decomposition products to be produced as dust or fume.

## SECTION V HEALTH HAZARD DATA

BB0404

**Threshold Limited Value** None assigned to this mixture.  
Toxicity: Potassium Acid Phthalate - none listed;  
Sodium Hydroxide: ipr-mus LD50: 40 mg/kg; orl-rbt LDLo: 500 mg/kg.

**Effects of Overexposure** Due to the high dilution of this solution it is not considered to be a hazardous material. Contact with skin and eyes may produce irritation. Ingestion may be harmful. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Exercise appropriate procedures to minimize potential hazards. Target organs: None known.

**Emergency and First Aid Procedures**  
**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Excessive temperature to cause evaporation.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Acids, alkalies, and air will change the buffer's ability.

**Hazardous Decomposition Products** Thermal decomposition will yield carbon oxides.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X

Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**  
Flush to sewer with copious amounts of water.  
Wash spill area with soap and water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Flush to sewer with copious amounts of water.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA approved respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	None required.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	None required.	<b>Other</b>	No.

**Protective Gloves** Rubber. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Goggles, lab coat, proper gloves, and eye wash station.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing**  
Store in a cool, dry place. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Remove and wash contaminated clothing.

**D.O.T.** NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

<b>Revision No.</b> 9	<b>Date</b> 01/01/07	<b>Approved</b> James A. Bertsch	<b>Chemical Safety Coordinator</b> JAB
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