



MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. BB 405
Effective Date January 30, 1999

SECTION V HEALTH HAZARD DATA

BB 405

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.

Emergency and First Aid Procedures
SKIN: Flush with water, then wash with soap and water. **EYES:** Flush thoroughly with water, lifting upper and lower eyelids occasionally. If irritation persists, get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and call physician. Never give anything by mouth to an unconscious person. **INHALATION AS MIST:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Excessive temperature to cause evaporation.
	Stable	X		

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

Hazardous Decomposition Products Thermal decomposition will yield carbon dioxide and/or carbon monoxide.

Hazardous Polymerization		Conditions to Avoid	Not applicable.
May Occur	Will Not Occur		
	X		

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.

Ventilation	Local Exhaust	None required.	Special	No.
	Mechanical (General)	None required.	Other	No.

Protective Gloves	Rubber	Eye Protection	Chemical safety glasses.
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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.

Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No.7	Date 1/30/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employees should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	BUFFER SOLUTION (pH 5)	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>0</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	0	Fire	0	Reactivity	0
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	0																	
Fire	0																	
Reactivity	0																	
Chemical Synonyms	Buffer Aqueous Solution																	
Formula	Mixture.																	
Unit Size	up to 20 Lt.																	
C.A.S. No.	Mixture.																	

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 ³ (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 (H₂O = 1)	1.0
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	98% +
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Ether = 1)	Greater than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Red liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-combustible.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
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Extinguisher Media 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.

D.O.T. NON-REGULATED.

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