MSDS Number: B5621 * * * * * Effective Date: 08/24/05 * * * * * Supercedes: 08/10/04

MSDS

Material Safety Data Sheet

From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865 Mallinckrodt CHEMICALS 24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-830-424-9300

National Response in Canada CANUTEC: 613-996-6666

Outside U.S. and Canada Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, tire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

BUFFAR® pH 4.01

1. Product Identification

Synonyms: pH buffer solution 4.01 CAS No.: Not applicable to mixtures.

Molecular Weight: Not applicable to mixtures. Chemical Formula: Not applicable. (ca. 99% water)

Product Codes: 0029, 0097

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Mercury, (acetato-O)phenyl- Potassium Acid Phthalate Methyl Red Sodium Salt Water	62-38-4 877-24-7 845-10-3 7732-18-5	< 0.01% < 1% < 0.001% 99%	No No No

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA (tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight Flammability Rating: 0 - None Reactivity Rating: 1 - Slight Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

No adverse health effects expected from inhalation.

Ingestion:

Large doses may cause stomach upset.

Skin Contact:

Not expected to be a health hazard from skin exposure. May cause mild irritation and redness.

Eye Contact:

Not expected to be a health hazard. May cause mild irritation, possible reddening.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures.

Ingestion:

Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Not expected to require first aid measures. Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage, direct sunlight, and freezing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

Not expected to require any special ventilation.

Personal Respirators (NIOSH Approved):

Not expected to require personal respirator usage.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Safety glasses.

9. Physical and Chemical Properties

Appearance:

Clear solution.

Odor:

Odorless.

Solubility:

Soluble in water.

Specific Gravity:

ca. 1.0

pH:

4.01

% Volatiles by volume @ 21C (70F):

No information found.

Boiling Point:

ca. 100C (ca. 212F)

Melting Point:

ca. 0C (ca. 32F)

Vapor Density (Air=1):

Essentially the same as water.

Vapor Pressure (mm Hg):

Essentially the same as water.

Evaporation Rate (BuAc=1):

Essentially the same as water.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

No hazardous decomposition products.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Nitric Acid.

Conditions to Avoid:

Incompatibles.

11. Toxicological Information

No	No	None
No	No	None
No	No	None
No	No	None
	No No	No No

12. Ecological Information

Environmental Fate: No information found. Environmental Toxicity: No information found.

13. Disposal Considerations

Dilute with water and flush to sewer if local ordinances allow, otherwise, whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

\Chemical Inventory Status - Part Ingredient		TSCA	EC	Japan	Australia
Mercury, (acetato-0)phenyl- (62-38-4)		Yes		Yes	
Potassium Acid Phthalate (877-24-7)		Yes	Yes	Yes	Yes
Methyl Red Sodium Salt (845-10-3)		Yes	Yes	No	Yes
Water (7732-18-5)		Yes	Yes	Yes	Yes
\Chemical Inventory Status - Part	2\				
				anada	
Ingredient		Korea			Phil.
Mercury, (acetato-0)phenyl- (62-38-4)			Yes		Yes
Potassium Acid Phthalate (877-24-7)		Yes	Yes	No	Yes
Methyl Red Sodium Salt (845-10-3)		Yes	Yes	No	Yes
Water (7732-18-5)			Yes		Yes
\Federal, State & International Re	egulat	ions -	Part :	1\	
		A 302-	Ŧ 2	SAR	A 313
Ingredient	RQ	TPQ	ът:	st the	mical Cat
Mercury, (acetato-0)phenyl- (62-38-4)					cury comp
Potassium Acid Phthalate (877-24-7)	No				The state of the s
Methyl Red Sodium Salt (845-10-3)	No				
Water (7732-18-5)	No	No	No		No
\Federal, State & International R	egulat	ions -	Part	2\	
			-RCRA	T	SCA-
Ingredient	CERC	LA	261.3	3 8	(d)
Mercury, (acetato-0)phenyl- (62-38-4)	100		P092		
Potassium Acid Phthalate (877-24-7)	No		No		
	No		No		0
Methyl Red Sodium Salt (845-10-3)	No		No		

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No

Reactivity: No

(Mixture / Liquid)

WARNING:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Industrial chemical.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

Disclaimer: ******

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