Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number: 1001, 1002, R-400, R-100, R-020, R-0160, R-0201, 5600511

Product Identity: BUFFER, REFERENCE STD, pH 4.00; BUFFER, PRECISION REFERENCE STD, pH 4.00 (Color Coded Red)

Manufacturer's Name: RICCA CHEMICAL COMPANY LLC

Address: 446 West Fox Dr

Date Prepared: 3/25/09

Revision: 5

Telephone Number For Information: 817-481-5601

Date Revised: 01/19/2011 10:38:28 am

Section 2: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry#</th>
<th>Concentration</th>
<th>ACD/II T/LV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (Methyl Alcohol)</td>
<td>67-56-1</td>
<td>&lt;0.1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Water, Deionized</td>
<td>7732-18-5</td>
<td>Balance</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Potassium Acid Phthalate</td>
<td>87-72-4</td>
<td>0.05 - 1.05</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Bicarbonate</td>
<td>94-70-8</td>
<td>&lt;0.1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Section 3: Hazard Identification

Eye Contact: May cause irritation. Wash eyes immediately with large quantity of water for at least 15 minutes. Get medical attention immediately.

Inhalation: May cause irritation. Avoid breathing the dust aerosol or spray. Get medical attention immediately.

Section 4: First Aid Measures - In all cases, seek qualified medical attention.

Eye Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Get medical attention immediately. Inhalation: Get medical attention immediately.

Section 5: Fire Fighting Measures

Flash Point: Not Available

Leakage: Not Available

Extinguishing Media: Water, foam

Fire & Explosion Hazards: Fire will not occur.

Fire Fighting Procedures: Use fire extinguishing method appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Absorb with suitable material and dispose of in accordance with local regulations.

Section 7: Handling and Storage

Handle with care. Wear rubber gloves.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use respirator or other personal protective equipment as necessary.

Respiratory Protection: Use NIOSH approved respirator.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: Chemically Sensing

Specific Gravity: 1.00

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: None

Inert Gas: None

Decomposition Products: None
Section 11. Toxicological Information

LD50, Oral Rat: 2000 mg/kg (Phthalic Acid Phthalaldehyde), death. No toxic effects reported other than lethal dose value.
LD50, Oral Rat: Methanol: 0.689 mg/kg. Death. No toxic effects reported other than lethal dose value.
LD50, Intravenous (IV) Rat: 13300 mg/kg.
LD50, Oral Rat: 15000 mg/kg. Death. No toxic effects reported other than lethal dose value.

Section 12. Ecological Information

Biological Information: No information found.
Chemical Fate Information: No information found.

Section 13. Disposal Considerations

Dilute with water, neutralize with active oxygen (hydrogen peroxide), then flush to sewer if local regulations allow. If not allowed, save for recovery or recycling in an approved waste disposal facility. Always dispose of in accordance with local, state, and federal regulations.

Section 14. Transport Information

Part Numbers

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - select regulations represented)

OSHA: No, the above forms do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety. These items do not meet the OSHA Hazard Communication Standard (19 CFR 1910.1200) definition of a hazardous material.
TSCA: Yes. All components of the solution are listed on the TSCA Inventory or as mixtures (hydrazine) of items listed on the TSCA Inventory.
Sara Title III:
Section 302 Extremely Hazardous Substances Not Applicable.
Section 311/312 Hazards Categories Not Applicable.
Section 313 Toxic Chemicals Not Applicable.
California: No Reporting.
Pennsylvania: Methanol (Methyl Alcohol) is listed as an Environmental Hazard on the state’s Hazardous Substances List. Methanol (Methyl Alcohol) is listed as an Environmental Hazard on the state’s Hazardous Substances List.
RCRA Status: U19A, U194
CERCLA Reporting Quantity: Methanol (Methyl Alcohol) - 2500 pounds. Methanol (Methyl Alcohol) - 5,000 pounds.

WHMIS: Not Applicable.

Section 16. Other Information

NFPA Ratings:
Health: 1
Flammability: 0
Reactivity: 0
Special Notice: Key Note

RID Ratings:
Health: 1
Flammability: 0
Reactivity: 0
Protective Equipment: (Protective Eye/face, Gloves)
Material Safety Data Sheet

Section 1: Chemical Product and Company Identification
Cataloging Number:
1551, 1553, 0-248, 0-1740, R1151, 0-0, 2001, 2001/120

Product Identity:
Buffer, Reference Standard, pH 7.0. Buffer, Precision Reference Standard pH 7.00 (Color Coded Yellow)

Manufacturer's Name:
RICCA CHEMICAL COMPANY LLC

Emergency Contact(24 hr) — CHEMTREC®
Domestic: 800-222-1222
International: 703-527-5967

CAGE Code: 4TCW6, 0V653, 4X202

Address:
446 West Fork Dr
Arlington, TX 76012

Date Prepared:
0/12/98

Telephone Number For Information:
817-461-5011

Revision:
8

Last Reviwed:
10/12/2009

Date Printed:
01/13/2011 10:19:37 am

Section 2: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Concentration</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate, Anhydrous</td>
<td>7758-18-4</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Water, Deionized</td>
<td>1250-04-3</td>
<td>Reference</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Potassium Phosphate, Monobasic</td>
<td>7778-77-2</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Inert Dye</td>
<td>Proprietary</td>
<td>&lt; 0.1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Resorcinol (Resorcinolmonoxide, Formaldehyde)</td>
<td>100-43-3</td>
<td>&lt; 0.1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Section 3: Hazard Identification
Emergency Overview: Non-flammable, non-toxic, non-corrosive. Does not present any significant health hazards. May cause irritation to eyes and skin. Wash area of contact with water.

Target Organs: Eyes, Skin

Eye Contact: May cause irritation.

Inhalation: May cause laryngitis, respiratory irritation to those allergic to phosphates.

Skin Contact: May cause irritation to those allergic to phosphates.

Section 4: First Aid Measures — In case of exposure, seek qualified medical attention.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.

Skin Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Dilute with water or milk. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available

Flammable Limits: Not Available

Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Fighting Instructions: Use usual procedures/protective equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Immediately with suitable material (leaves, clay, etc.) and dispose of in accordance with local regulations.

Check with local agencies for proper disposal of phosphorus containing solutions.

Section 7: Handling and Storage

As will all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physicochemical Properties

Appearance: Clear, Yellow Liquid

Odor: Odorless

Solubility In Water: Infra

Specific Gravity: Approximately 1

Boiling Point: Approximately 100

Melting Point: Approximately 0

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: None Identified.

Hazardous Decomposition Products: Phosphorus oxides may form when heated to decomposition.

Hazardous Polycondensation: Wt not given.

Page 1 of 4
Section 11. Ecological Information

LD50: Rat, Oral (sodium phosphate dihydrate) 13 g/kg; LC50: Dog, Oral (phosphates in Prune Juice) >480 mg/kg; routes of toxic effects not reported other than oral dose value.

Section 12. Ecological Information

Section 13. Disposal Considerations

Drain with water, then flush to sewer. If local regulations allow for the flushing of phosphate-containing solutions, if not allowed, save for recovery or recycling in an approved waste disposal facility. Always dispose in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulations represented)

OSHA: The above items either do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA: Section 313 Hazardous Chemicals Not Applicable

Section 311/312 Hazardous Categories Not Applicable

Section 331 Toxic Chemicals Not Applicable

Carcinogen: None Known

Pennsylvania: Sodium Phosphate, Diabetic is listed as an Environmental Hazard on the state's Hazardous Substances List. Sodium Phosphate, Diabetic is listed as an Environmental Hazard on the state's Hazardous Substances List. RCRA Status: Not Applicable.

CERCLA Reporting Quantity: Sodium Phosphate, Diabetic - 500 pounds. Sodium Phosphate, Diabetic - 500 pounds.

Section 16. Other Information

NFPA Ratings

Health: 1
Flammability: 0
Reactivity: 0
Special Notice: No Accs.

HWH Ratings

Health: 1
Flammability: 0
Reactivity: 0
Protective Equipment: (Protective Eyewear, Gloves)

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Attention of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.
Material Safety Data Sheet

Section 1: Chemical Product and Company Identification
Catalog Number: 1501, 1502, 1503, 3001, 3002, 3003, 3008

Product Identification:
BUFFERS, REFERENCE STD, pH 10.00, BUFFER, PRECISION REFERENCE STD, pH 10.00 (Color coded blue)

Manufacturer's Name: RICCA CHEMICAL COMPANY LLC
Address: 446 West Fork Dr
Arlington, TX 76012

Data Prepared:
Revision: 5
Last Revised: 04/13/2012
Date Printed: 05/13/2011 19:39:22 am

Section 2: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Concentration</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Carbonate</td>
<td>144-55-8</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>135-09-2</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Water, Deionized</td>
<td>7732-18-5</td>
<td>Balance</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Red Dye</td>
<td>Proprietary</td>
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<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>DISSOLUBILITIES</td>
<td>Proprietary</td>
<td>&lt; 0.1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Section 3: Hazard Identification
Emergency Overview: Non-flammable, non-toxic, non-corrosive. Does not present any significant health hazards. Wash area of contact with water.

Target Organ: eyes, skin
Eye Contact: May cause slight irritation
Skin Contact: May cause slight irritation

Section 4: First Aid Measures
Ingestion: May cause nausea, vomiting, diarrhea and cramps.
Chronic Effects: No effects noted.
IRAC - No.
WTP - No.
OSHA - No.

Reproductive Effects: Reproductive effects noted in Registry of Toxic Effects of Chemical Substances for Sodium Carbonate. Reproductive effects noted in Registry of Toxic Effects of Chemical Substances for Sodium Carbonate.

Section 5: Fire Fighting Measures
Flash Point: Not Available
ULFL: Not Available
Extinguishing Media: Use any media available for extinguishing surrounding fire.
Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.
Fire Fighting: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures
Absorb with suitable material and treat as normal release. Small amounts of the liquid may be poured to the drain with excess water. Always dispose of in accordance with local regulations.

Section 7: Handling and Storage
As with all chemicals, which hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Section 8: Exposure Control/Personal Protection
Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.
Respiratory Protection: Normal room ventilation is adequate.
Skin Protection: Chemical resistant gloves.
Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties
Appearance: Clear, free from sediments
Other Obnoxious: Odorless
Solubility in Water: Inadequate
Specific Gravity: Approximately 1
pH: 10.0
Boiling Point: Approximately 95°C
Melting Point: Approximately 0
Viscosity: Red Applicable

Section 10: Stability and Reactivity
Chemical Stability: Stable under normal conditions of use and storage
Incompatibility: Acids

Page 1 of 4
Section 11. Toxicological Information
LD50: Oral, Rat: 4500 mg/kg (Octanol/Water); 4200 mg/kg (Octanol/Water). Details of toxic effects not reported other than lethal dose value.

Section 12. Ecological Information
Biodata: Information not available for this product.

Section 13. Disposal Considerations
Dispose of in accordance with local, state, and federal regulations.

Section 14. Transport Information
This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)
OSHA Hazards: There are no hazardous chemicals or the potentially hazardous materials present that do not meet the OSHA Hazard Communication Standard (29 CFR Part 1910) definition of a hazardous material.

Section 16. Other Information
NFPA Ratings:
Health: 1
Flammability: 0
Reactivity: 0
Special Fire Fighting Procedures: Self-contained Breathing Apparatus required.

ICSC 71013: Not Applicable.

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