Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number:
1614, 1615, 1619, 1619.5, 1620, 1625, B-306, B017990, B018010, B018030, BX-1019, BX-910, BX-955, R1818300, SB017990, SB018010, SB018030

Product Identity:
BUFFER, REFERENCE STANDARDS, pH 11.88 - 13.00

Manufacturer's Name:
RICCA CHEMICAL COMPANY LLC

Emergency Contact(24 hr) -- CHEMTREC®
Domestic: 800-424-9300
International: 703-527-3887

CAGE Code: 4TCW6, 0V553, 4XZQ2

Address:
448 West Fork Dr
Arlington, TX 76012

Telephone Number For Information:
817-461-5601

Date Prepared:
3/8/99

Revision: 9
Last Revised: 12/16/2010
Date Printed: 09/06/2011 11:14:18 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 Hydroxide</td>
<td>1310-73-2</td>
<td>&lt; 0.7</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C 2 mg/m3</td>
<td>2 mg/m3</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
<td>&lt; 0.5</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></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>
</tbody>
</table>

Section 3: Hazard Identification

Emergency Overview: Wash areas of contact with water. Does not present any significant health hazards.

Target Organs: eyes, skin

Eye Contact: May cause slight irritation.

Inhalation: Not likely to be hazardous by inhalation.

Ingestion: May cause nausea, vomiting, diarrhea and cramps.

Chronic Effects/Carcinogenicity: None

IARC - No.
NTP - No.
OSHA - No.
Section 4: First Aid Measures - In all cases, seek qualified evaluation.

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. Do not induce vomiting. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available.
LFL: Not Available.
Method Used: Not Available.
UFL: 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 normal procedures/instructions.
Fire Fighting Equipment: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Absorb the spill with suitable material. Neutralize with dilute acid solution, then flush to drain with excess water if allowed by local regulations. Always dispose of in accordance with local, state and federal regulations.

Section 7: Handling and Storage

As with 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: Physical and Chemical Properties

Appearance: Clear, colorless liquid
Odor: Odorless
Solubility in Water: Infinitely
Specific Gravity: Approximately 1
pH: 11.8 - 13
Boiling Point(°C): Approximately 100
Melting Point(°C): Approximately 0
Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.
Incompatibility: Bromine Trifluoride, Potassium Permanganate plus Sulfuric Acid.
Hazardous Decomposition Products: Oxides of Potassium and Sodium may form when heated to decomposition.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

LD50, Oral, Rat (Potassium Chloride) 2600 mg/kg, details of toxic effects not reported other than lethal dose value
Section 12. Ecological Information
Ecotoxicological Information: No information found.
Chemical Fate Information: No information found.

Section 13. Disposal Considerations
Neutralize with dilute acid solutions, then wash the resulting liquid down the drain with excess water if local regulations allow. If not allowed, save for recovery or recycling in a RCRA 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 - selected regulation represented)

OSHA Status: 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 Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:
Section 302 Extremely Hazardous Substances: Not Applicable.
Section 311/312 Hazardous Categories: No
Section 313 Toxic Chemicals: Not Applicable.

Pennsylvania: Sodium Hydroxide is listed as an Environmental Hazard on the state's Hazardous Substances List. Sodium Hydroxide is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Sodium Hydroxide - 1,000 pounds. Sodium Hydroxide - 1,000 pounds.

WHMIS: E: Corrosive Material.

Section 16. Other Information

NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Special Notice Key: None

HMIS Ratings:

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

Rev 1, 9-18-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300; (Section 2) corrected concentration of Potassium Chloride (from 7.5-30) and Sodium Hydroxide (from < 1); (Section 7) added storage code.
Rev 2, 10-09-2001: Reformatted to electronic data format.
Rev 3, 07-31-2003: (Section 1) added Solutions Plus catalog numbers B017990, B018010 and B018030. Catalog number B018030 effective 9-1-03.
Rev 4, 11-07-2003: (Section 1) added catalog number 1619.5.
Rev 5, 04-05-2004: (Section 2) corrected concentration of Sodium Hydroxide from < 7%.
Rev 6, 02-02-2006: (Section 1) added catalog number R1618300.
Rev 7, 05-16-2006: (Section 1) added Red Bird catalog number BX-1019.
Rev 8, 12-21-2007: (Section 1) revised pH range from 12.00 - 13.00; added catalog number 1614; (Section 9) revised pH range from 12-13.
Rev 9, 12-16-2010: (Section 15) revised WHMIS information.
When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration 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.