


Material Safety Data Sheet

| | | | |
|--|----------------------|--------------------|--------------------|
|  | Red Bird | Health: | 0 - Minimal |
| | S e r v i c e | Fire: | 0 - Minimal |
| | | Reactivity: | 0 - Minimal |

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MSDS: 98468

Prep Date: 8/9/2001

Product: Buffer Solution

Revision: 5

Section 1 - Chemical Product and Company Identification

Product Chemical Name: Buffer Solution

Chemical Formula: Buffer Solution

CAS No:

Manufacturer: Red Bird Services PO Box 155 205 Western Avenue Osgood IN 47037

For Emergency, Call Chemtree 24 hours a day....800-424-9300

Catalog Number: B-295 (pH-8.0), B-296 (pH-8.48), B-300 (pH-9.0), B-301 (pH-9.18), B-302 (pH-10.0), B-304 (pH-10.0)

Synonym: N/A

Section 2 - Composition/Information on Ingredients

| Ingredients | CAS Number | % wt or N |
|--|------------|-----------|
| Potassium Chloride | 7447-40-7 | <1 |
| Water | 7732-18-5 | balance |
| Boric Acid | 10043-35-3 | <1 |
| Sodium Hydroxide | 1310-73-2 | <1 |
| Erioglauaine (FD&C) (USED ONLY IF COLORED) | 3844-45-9 | N/A |

| OSHA PEL | | ACGIH TLV | | NIOSH REL | | NIOSH |
|------------|------------|------------|------------|------------|------------|------------|
| TWA | STEL | TWA | STEL | TWA | STEL | IDLH |
| not estab | not estab | not estab | not estab | not estab | not estab | not estab |
| not estab. | not estab. | not estab. | not estab. | not estab. | not estab. | not estab. |
| not estab. | not estab. | not estab. | not estab. | not estab. | not estab. | not estab. |
| 2mgm3 | 2mg/m3 | 2mg/m3 | 2mg/m3 | 2mg/m3 | 2mg/m3 | 10mg/m3 |
| not estab | not estab | not estab | not estab | not estab | not estab | not estab |

Section 3 - Hazard Information

Primary Entry Route: Inhalation, digestion, and skin contact

Target Organs: Eyes, skin, digestion track, respiratory system.

Acute Effects: Sodium Hydroxide in concentrated form is destructive to all human tissue it contacts causing sever burns or permanent damage. Inhalation of mist can damage the entire respiratory sys. Digestion of solution may be extremely toxic. This solution contains <1% Sodium Hydroxide.

Inhalation: Irritant

Eye: Dangerous

Skin: Irritant

Ingestion: dangerous

Carcinogenicity: Not considered to be.

Medical Conditions: None listed.

Chronic Effects: N/A

Section 4 - First Aid Measures

Inhalation: Move to fresh air, give oxygen if difficulty in breathing. Get medical attention.

Eye Contact: Flush with water for at least 15 minutes, including under eyelids. Get medical attention.

Skin Contact: Flush with water for 15 minutes. If irritation persists, get medical attention.

Ingestion: Give water to drink to dilute material. Induce vomiting. Never give anything by mouth to anyone who is unconcious or convulsing. Get medical attention.

Special Precautions: NA

Section 5 - Fire Fighting Measures

Flash Point: non flammable

Burning Rate: N/A

Auto Ignition: N/A
Temperature

LEL: N/A

UEL: N/A

Flammability
Classification: 0

Extinguishing

Media: Use that of surrounding fire.

Unusual Fire/Explosion Hazards: When heated may produce toxic and corrosive fumes

Hazardous Combustion Products: Carbon and potassium oxides

Instructions: Do not release runoff from fire control methods, to sewers, or waterways.

Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (scba) with a full facepiece operated with pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill/Leak Procedures:

Small Spills: Sec6ARMSmSp

Large Spills: For containment; dike far ahead of the spill. Absorb with material.

Regulatory Requirement: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling

Precautions: Wear safety glasses, goggles, or face shield, safety gloves, personal protective clothing, or respirator or airlines as required in section 8 in this MSDS.

Storage

Requirements: Store in closed container, cool, dry, in well-ventilated area, away from source of heat, and incompatible materials.

Regulatory

Requirement: See section 15 of this MSDS.

Section 8 - Exposure Controls/ Personal Protection

Engineering

Controls: N/A

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative

Controls: N/A

Respiratory

Protection: Seek professional advise prior to respirator selection and use, Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear a MSHA/NIOSH approved respirator. Select respirator based on it's suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels or storage tanks), wear an SCBA. Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective

Clothing/

Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety glasses. Per OSHA eye-and-face-ptotection regulations (29 CFR 1910.133).

Safety

Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated

Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Contact lenses are not safety protection; soft lenses absorb and all lenses concentrate exposure. Practice good personal hygiene after use of this material especially before eating, drinking, smoking, using the toilet or applying cosmetics. Never eat, drink, or smoke in work areas.

Section 9 - Physical and Chemical Properties**Physical State:** liquid**Odor Threshold:** N/A**pH:** NA**Vapor Press:** 14**Boiling Point:** 100 c**Vapor Density:** 0.7**Freezing/ Melting Point:** NA**Formula Weight:** N/A**Viscosity:** N/A**Density:** N/A**Refract Index:** N/A**Spec Gravity:** like water**Surface Tension:** N/A**% Volatile:** NA**Appearance****Odor:** A clear colorless liquid with no odor unless color is added.**Evaporation****Rate:** NA**Water****Solubility:** completeN/A**Section 10 - Stability and Reactivity****Stability:** Stable**Polymerization:** Cannot not occur**Chemical****Incompatibilities:** none found**Conditions to Avoid:** N/A**Hazardous****Decomposition****Products:** Toxic and corrosive fumes**Section 11 - Toxicological Information****Eye Effect:** Irritation**Skin Effect:** Irritation**Acute****Inhalation****Effects:** Irritation**Acute Oral****Effects:** Irritation**Chronic Effects:** See section 3 in this MSDS.**Carcinogenicity:** Not listed

Mutagenicity: Not listed

Teratogenicity: Not listed

Section 12 - Ecological Information

Ecotoxicity: N/A

**Environmental
Fate:** N/A

**Environmental
Transport:** N/A

**Environmental
Degradation:** N/A

**Soil
Absorption
Mobility:** N/A

Section 13 - Disposal Considerations

Disposal: See section 6 of this MSDS

**Disposal
Regulatory
Requirements:** See section 15 of this MSDS.

**Container
Cleaning and
Disposal:** N/A

Section 14 - Transport Information

Shipping Name: Not regulated

Shipping Symbol: N/A

Hazard Class: N/A

Id No: N/A

Packing Group: N/A

Label: N/A

Special Provision: N/A

**Packaging
Exceptions:** N/A

Nn-Blk Packaging: N/A

Bulk Packaging: N/A

Quantity Limitations:

Passenger, Air, or Rail: N/A

Cargo Aircraft Only: N/A

Vessel Stowage Requirements:

Vessel Stowage: N/A

Other: N/A

Section 15 - Regulatory Information

EPA Regulation:
RCRA hazardous waste number: Not Listed (40 CFR 261.33)
RCRA hazardous Waste classification: (40 CFR 261.??): N/A.

CERCLA hazardous Substance (40 CFR 302.4): not listed specific peer RCRA, Sec 3001; CWA, Sec 311 (b)(4); CWA, Sec 307(a), CAA:
CERCLA Reportable Quality (RQ):
SARA 311/312 Codes:
SARA Toxic Chemical (40 CFR 372.65):
SARA EHS (Extremely hazardous substance)(40 CFR 355): listed, Threshold Planning Quality (TPQ) Listed
OSHA Regulations:
Air contaminant (29 CFR 1910.1000, Table Z-1-A):
OSHA Specifically Regulated Substance(29 CFR 1910.1000):
State Regulations: STCC Listed,
DOT(40 CFR 172.101 Append.):
ACGIH Threshold Limit Value:
MAK: listed
TSCA: listed
ANNEX I: listed

Section 16 - Other Information

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Approved By: **Gene Feith** **Operation Manager** **Red Bird Service**

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