MATERIAL SAFETY DATA SHEET

MANUFACTURER: TAYLOR TECHNOLOGIES, INC
31 LOVETON CIRCLE
SPARKS, MD 21152
TELEPHONE: 410-472-4340

1. PRODUCT IDENTIFICATION
CATALOG NO.: R-1003J
PRODUCT NAME: pH Indicator Solution (Phenol Red)
CHEMICAL FAMILY: Sulfonphthalein dye solution

2. INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>%</th>
<th>HAZARD OF HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenolsulfonphthalein (phenol-red)</td>
<td>143-74-8</td>
<td>&lt;1</td>
<td>ALKALINE</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>&lt;1</td>
<td>Ph. alkali</td>
</tr>
<tr>
<td>Deionized water</td>
<td>7732-18-5</td>
<td>to 100</td>
<td></td>
</tr>
</tbody>
</table>

3. PHYSICAL/CHEMICAL CHARACTERISTICS
STATE: Liquid
APPEARANCE: Clear, red-orange
COLOR: Sulfidic
BOILING PT (F): 212
pH: 7.6
SPECIFIC GRAVITY: 1
VAPOR PRESSURE (mm Hg): 17
VAPOR DENSITY (AIR=1): 4
PERCENT VOLATILE BY VOLUME: 99
SOLUBILITY IN WATER: Soluble

4. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA
FLASH PT: NA
METHOD: NA
FLAMMABLE LIMITS: LEL: NA
UEL: NA
EXTINGUISHING MEDIA: NA
SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and full-protective clothing
FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes of carbon oxides, sulfur oxides.
NFFPA CODE: Health: 0 Flammability: 0 Reactivity: 0 Specific: NA
CONDITIONS TO AVOID: Extreme heat, temperatures.

5. HEALTH HAZARD DATA

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>TOXICITY: LD50 (oral-rat): 140-340 mg/kg</th>
<th>PEL: 2 mg/m3</th>
<th>TLV: 2 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL: NE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ROUTE(S) OF ENTRY: Inhalation Ingestion X Skin
TARGET ORGAN(S): Eyes, skin
CARCINOGENICITY: NTP No IARC No OSHA No
HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:
EYES: Irritant
SKIN: Irritant. Contact may cause staining.
INGESTION: Irritant. May cause gastrointestinal irritation.
INHALATION: NA
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and skin conditions
6. PRECAUTIONARY MEASURES

PROTECTIVE EQUIPMENT: General purpose gloves, safety glasses, lab coat

HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.

STORAGE: Cool, dry area. Avoid direct sunlight.

7. EMERGENCY AND FIRST AID PROCEDURES

EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Wash skin thoroughly with soap and water.

INGESTION: Give large amounts of water. Call physician. Induce vomiting under direction of physician.

INHALATION: NA

8. SPILL AND DISPOSAL PROCEDURES

SPILL OR RELEASE: Absorb with vermiculite or other inert material.

Containerize for later disposal.

DISPOSAL: Incineration or other method to comply with federal, state, and federal regulations.

NA = Not applicable
ND = Not determined
NE = Not established

This Material Safety Data Sheet has been prepared in accordance with 29 CFR Part 1910.1200 and contains information believed to be accurate and complete at the date of preparation. However, no warranty is expressed or implied. Advice given under "Spill and Disposal Procedures" assumes compliance with federal, state, and local regulations regarding the disposal of hazardous waste.

DATE PREPARED: May 1996