MATERIAL SAFETY DATA SHEET
TAYLOR TECHNOLOGIES, INC.

MSDS 1003J

R-1003J

MATERIAL SAFETY DATA SHEET

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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>NATURE OF HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenolsulfonphthalein (phenol red)</td>
<td>143-74-8</td>
<td>&lt;1</td>
<td>Irritant</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>&lt;1</td>
<td>Irritant alkali</td>
</tr>
<tr>
<td>Deionized water</td>
<td>7732-18-5</td>
<td>to 100</td>
<td>None</td>
</tr>
</tbody>
</table>

3. PHYSICAL/ CHEMICAL CHARACTERISTICS

STATE: Liquid
APPEARANCE: Clear, red-orange
ODOR: Sulfidic

BOILING PT (F): 212
pH: 7.6
SPECIFIC GRAVITY: 1

VAPOR PRESSURE (mm Hg): 17
VAPOR DENSITY (AIR=1): .6

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.

NFPA CODE: Health: 0
Flammability: 0
Reactivity: 0
Specific: NA

CONDITIONS TO AVOID: Extreme heat, temperatures.

5. HEALTH HAZARD DATA

INGREDIENT: Sodium hydroxide
TOXICITY: LD50(oral-rat): 140-340 mg/kg
PEL: 2 mg/m3
TLV: 2 mg/m3

STEL: NE

ROUTE(S) OF ENTRY: Inhalation
Ingestion X
Skin X

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 all local, state, and
   federal regulations.

9. TRANSPORTATION DATA (U.S. - SURFACE)
   PROPER SHIPPING NAME: Not regulated
   HAZARD CLASS: NA
   IDENTIFICATION NO.: NA

   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 1995