MATERIAL SAFETY DATA SHEET

MANUFACTURER: TAYLOR TECHNOLOGIES, INC
31 LOVETON CIRCLE
SPARKS, MD 21152

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1. PRODUCT IDENTIFICATION
CATALOG NO.: R-0600

PRODUCT NAME: Orthotolidine
CHEMICAL FAMILY: Acidic aromatic halogen solution

2. INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>%</th>
<th>HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthotolidine dihydro-</td>
<td>612-82-8</td>
<td>&lt;1</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>chloride</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>&lt;10</td>
<td>Corrosive acid</td>
</tr>
<tr>
<td>Deionized water</td>
<td>7732-18-5</td>
<td>to 100</td>
<td></td>
</tr>
</tbody>
</table>

*This chemical is subject to the reporting requirements of Title III Section 313 and 40 CFR 372.

3. PHYSICAL/CHEMICAL CHARACTERISTICS

STATE: Liquid
APPEARANCE: Clear, slight yellow
PH: .01
SOLUBILITY IN WATER: 100%

4. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA

FLASH PT: NA
METHOD: NA

FLAMMABLE LIMITS: LEL: NA
UEL: NA

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water雾或 foam

SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and special protective clothing

FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION: Contact with metals may produce hydrogen gas. May emit toxic fumes; hydrochloric, hydrogen chloride.

NFPA CODE: Health: 3 Flammability: 0 Reactivity: 0 Specific: CORR

CONDITIONS TO AVOID: Extreme heat, temperatures. Contact with metals, alkalis, strong oxidizers.

5. HEALTH HAZARD DATA

INGREDIENT: Orthotolidine dihydrochloride

TOXICITY: LD50 (oral-rat): 404 mg/kg

PEL: NE
STEL: NE

INGREDIENT: Hydrochloric acid

TOXICITY: LD50 (oral-bat): 900 mg/kg

PEL: 7 mg/m3 (ceiling)
STEL: NE
5. HEALTH HAZARD DATA - continued
ROUTE(S) OF ENTRY: Inhalation X  Ingestion X  Skin X
TARGET ORGAN(S): Eyes, skin, respiratory tract
CARCINOGENICITY: NTP Yes  IARC Yes  OSHA No
HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:
EYES: Corrosive. Contact may cause severe burns.
SKIN: Corrosive. Contact may cause severe burns.
INGESTION: Corrosive. May cause severe gastrointestinal irritation, cyanosis, headache, dizziness, burns of mouth, esophagus, and stomach.
INHALATION: Irritant
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin, and respiratory conditions

6. PRECAUTIONARY MEASURES
PROTECTIVE EQUIPMENT: Rubber gloves, safety glasses, lab coat, rubber apron, adequate ventilation.
HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.
STORAGE: Cool, dry, well-ventilated 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 baking soda, soap and water.
INGESTION: Give large amounts of water or large amounts of water with milk of magnesia. Call physician. DO NOT INDUCE VOMITING.
INHALATION: Remove to fresh air. Call physician.

8. SPILL AND DISPOSAL PROCEDURES
SPILL OR RELEASE: Neutralize with soda ash. Absorb in inerts, cellulite or other inert material. Containerize for later disposal.
DISPOSAL: Incineration or other method to comply with all local, 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 1998