MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY PAINT TYPE TRADE NAME
#522, 622, 722 FABRIC MARKER

1. INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I. Pigment Black 7</td>
<td>&lt;69.4</td>
<td>N.A.</td>
</tr>
<tr>
<td>Acrylic Emulsion Resin</td>
<td>9.68</td>
<td>N.A.</td>
</tr>
<tr>
<td>Glycerin</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Polyoxy ethylene alkyl ether</td>
<td>0.025</td>
<td>N.A.</td>
</tr>
<tr>
<td>Fungicide Agent</td>
<td>0.1</td>
<td>N.A.</td>
</tr>
<tr>
<td>Purified Water</td>
<td>residual part</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

2. PHYSICAL DATA

- Boiling Point (Celsius degree): 100C
- Solubility in Water: Soluble
- Vapor Pressure at 25C: not measured
- Vapor Density (Air=1): not measured
- Evaporation Rate (Bu-Ac=1): unknown
- Appearance and Odor: Colored liquid substantially odorless
- Specific Density: 1.0-1.1
- Percent Volatile: 1-10

3. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): none (C.C)
FIRE-FIGHTING MEASURES: The ink contains considerable water, so these are not in flammable at room temperature. But, polymer film may be combustible. So, in case of fire, pouring of plenty of water is effective.

4. HEALTH HAZARD DATA

THRESHOLD LIMITED VALUE: not measured

EFFECTS OF OVEREXPOSURE: The main components of these inks are pigments, emulsion resins, foaming agents, and some additives.

EMERGENCY AND FIRST AID PROCEDURES:

After inhalation: As the solvent vapor pressure is low, the dangerous inhalation cannot occur.

After skin contact: It is easy to clean up the resin with water during wet conditions.

After eye contact: Immediately rinse the stained eye with plenty of water, and call a physician.

After consumption: Water and call on a physician if necessary. The container of ink can be disposed of as ordinary plastic waste.

5. REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Take care not to freeze the ink. Take care not to keep at high temperature (above 40°C)

HAZARDOUS POLYMERIZATION: Will not occur. Doesn’t polymerize.

6. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wipe the material with cloth and wash with water.

WASTE DISPOSAL METHOD: Burn out, empty containers according to the ordinary plastic waste. It may be preferable to dry up this ink and burn out the solid residue.
7. SPECIAL PROTECTION INFORMATION

RESPIRATION PROTECTION (Specify type): No special precaution is necessary.

VENTILATION: unnecessary

PROTECTIVE GLOVES: To protect the staining gloves.

OTHER PROTECTION: At room temperature, no volatile materials are present in these inks. But, at 120-130C, the break down of microcapsule may occur to burst out isobutene, accordingly film foaming causes.

8. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: When the ink dries up, polymeric materials are left, so if the uncapped pen is left for a long time, the nozzle will clog up.

OTHER PRECAUTIONS: Keep out of reach of baby or children