1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>UVink LF-140 Magenta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>SPC-0727M,SPC-0728M</td>
</tr>
<tr>
<td>General Use</td>
<td>Ink for ink jet printer</td>
</tr>
<tr>
<td>Product Description</td>
<td>UV curable ink</td>
</tr>
<tr>
<td>MSDS Number</td>
<td>031-37U07MC</td>
</tr>
<tr>
<td>Manufacture</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Mimaki Engineering Co., Ltd</td>
</tr>
<tr>
<td>Address</td>
<td>2182-3 Otsu, Shigeno, Tomi-shi, Nagano 389-0512 Japan</td>
</tr>
<tr>
<td>Telephone No.</td>
<td>+81-268-64-2413</td>
</tr>
<tr>
<td>Importer/Distributor Established in USA</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>MIMAKI USA. INC.</td>
</tr>
<tr>
<td>Address</td>
<td>150 Satellite Boulevard, suite A, Suwanee, Georgia 30024, U.S.A</td>
</tr>
<tr>
<td>Telephone No.</td>
<td>1-678-730-0100</td>
</tr>
<tr>
<td>Emergency Telephone No.</td>
<td>+81-268-64-2413</td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency Overview
  - May be harmful if swallowed
  - May be harmful in contact with skin
  - Causes skin irritation
  - May cause an allergic skin reaction
  - Causes serious eye irritation
  - May cause harm to breast-fed children
  - Very toxic to aquatic life

Potential Health Effects

Inhalation
  : May be harmful if swallowed

Eye Contact
  : Causes serious eye irritation.

Skin Contact
  : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.

Potential Environmental Effects
  : Very toxic to aquatic life.

HMIS Rating (scale 0 – 4)          NFPA Rating (scale 0 – 4)
Health = 2                     Health = 2
Flammability= 1                 Flammability = 1
Reactivity = 1                   Instability =1
Protective Equipment = G            Special =None

3. Composition / Information On Ingredients

<table>
<thead>
<tr>
<th>No</th>
<th>Chemical Name</th>
<th>Wt%</th>
<th>CAS No.</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acrylic ester</td>
<td>75-95</td>
<td>Registered</td>
<td>Trade secret</td>
</tr>
<tr>
<td>2</td>
<td>Photo initiator</td>
<td>10-15</td>
<td>Registered</td>
<td>Trade secret</td>
</tr>
<tr>
<td>3</td>
<td>Quinacridone magenta</td>
<td>0.1-5</td>
<td>Registered</td>
<td>Trade secret</td>
</tr>
<tr>
<td>4</td>
<td>Additives</td>
<td>0.1-5</td>
<td>Registered</td>
<td>Trade secret</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Inhalation : If inhaled, immediately remove to fresh air and keep warm and calm. If breathing irregularly or not breathing, give artificial respiration and consult a doctor immediately.

Skin contact : Wash skin thoroughly with plenty of water. If on clothing, remove immediately contaminated clothing. The product don't evaporate therefore staying on the skin or clothing for a long time. If no washing or no taking off the clothing, it may cause inflammation on the skin.

Eye contact : Flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Consult an ophthalmologist immediately.

Ingestion : Do not induce vomiting. If swallowed, keep calm and consult a doctor immediately. Keep from swallowing vomit.

Concise statement on the most : No relevant information found.
Material Safety Data Sheets

important symptom
Protection to first-aiders Note to physician
: Wear tools for appropriate protection. Ventilate. See section 7 and 8.
: See section 7 and 8.

5. Fire Fighting Measures

Extinguishing media Hazard in fire Fire-fighting procedures Protection to firefighters
: Foam, carbon dioxide, dry chemical, water spray. Never splash water.
: Avoid breathing combustion products.
: Wear tools for appropriate protection.

6. Accidental Release Measures

Personal precautions Environmental precautions Steps to be taken if material is spilled Second-accident precautions
: Avoid discharge to rivers and environmental effects.
: Small spills: Absorb with nonflammable absorbent such as dry sand and dirt. Large spills: Pump spills into a sealing container and remove to safe place. Use non-sparking equipment during recovery operation and ground equipment. See section 13, Disposal Considerations, for disposing of waste.
: Prepare proper fire extinguishers and eliminate all sources of ignition in vicinity of spill. Avoid walking on the spills. Use safety tools to prevent sparks.

7. Handling And Storage

Handling
: Handle in well-ventilated area. Prohibit use of fire, sparks and heat source.
Use antistatic clothing and shoes. Ground equipment against electrostatics and use
spare-proof tools. Keep from increasing of temperature for flammable substance. Use local exhaust system and proper protection if working in closed area. Use proper protection (gloves, masks, aprons, goggles, etc.)

Storage: Keep container tightly closed, store at cool and aired place, open and handle carefully. Protect from light. Protect from heat/overheating. Avoid contact with peroxides or other free radical initiators.

8. Exposure Controls / Personal Protection

8.1. Exposure limit values
Not applicable

8.2. Exposure controls
Engineering controls: Use explosion-proof equipment if handle in volume. Use exhaust system to prevent vapor build-up. Keep heat or fire sources from handling area. If working indoors, use proper equipment to protect workers from direct exposure or use local exhaust system to protect workers from exposure.

Respiratory protection: Wear protective masks for hazardous materials.

Hand protection: Wear gloves resistant to organic solvents and chemicals.

Eye protection: Wear chemical goggles.

Skin protection: Wear clothing to protect skin from direct exposure. Wear protective clothing resistant to chemicals.
### 9. Physical And Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (physical state/color etc)</td>
<td>Liquid (25°C) / magenta</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;93°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.07(25°C)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>23 ± 3 mPa·s (25°C)</td>
</tr>
<tr>
<td>VOC</td>
<td>Not available</td>
</tr>
<tr>
<td>Solvent content</td>
<td>Organic solvents ≤0.5Wt%</td>
</tr>
<tr>
<td>water amount</td>
<td>≤0.7Wt%</td>
</tr>
</tbody>
</table>

### 10. Stability And Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable under the usual handling condition.</td>
</tr>
<tr>
<td>Condition to avoid</td>
<td>Excessive heat and cold, sparks, ignition sources, light and high humidity.</td>
</tr>
<tr>
<td></td>
<td>May result in polymerization.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Oxidant, explosive substances, catalysts, alkaline, free radical initiators.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>To burn this product may be produce toxic gases such as CO and low-molecular-weight monomers.</td>
</tr>
<tr>
<td>Other</td>
<td>Plastic and rubbers might be melted.</td>
</tr>
</tbody>
</table>
11. Toxicological Information

[ACUTE TOXICITY]
- Oral: Rats LD50 >2,000mg/kg: Category 5
- Dermal: Rabbit LD50 >2,000mg/kg: Category 5

[OTHERS] Not available

12. Ecological Information

General notes: Handling is noted because it might influence the environment when leaking and abandoning it. Especially, note that the product doesn't flow directly to ground, the river, and the drain ditch.

Ecological toxicity: Hazardous to the aquatic environment
- Acute hazard L(E)C50 <1.00mg/L: Category 1

Persistence and degradability: Not available
Bioaccumulative Potential: Not available
Mobility: Not available

13. Disposal Considerations

- Have waste inks, containers and other materials disposed by licensed industrial waste disposer.
- Do not dump drainage flushed containers and equipment into sewers, on the ground.
- Dispose of wastes from drainage or incineration, in compliance with the laws and regulations.
- Adsorb to diatom earth and others to dispose waste inks, and use open incinerator.
- Dispose of wastes by licensed industrial waste disposer to comply with the local laws and regulations.
- Empty inks and other materials out of containers if disposed.

14. Transport Information

Check a thing without a leak in a container.
Perform prevention of collapse of cargo surely.

LAND TRANSPORT

ADR, RID Class: 9 Miscellaneous dangerous substances and articles
Packing Group (PG): III
Classification code: M6
Material Safety Data Sheets


Hazard Identification No. : 90
UN Number : 3082
Hazard label : 9
Name and description : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport category : 3
(Tunnel restriction code) (E)

SEA TRANSPORT
IMDG
Class : 9
Packing Group (PG) : Ⅲ
UN Number : 3082
Hazard label : 9
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

AIR TRANSPORT
ICAO/IATA
Class : 9
Packing Group (PG) : Ⅲ
Passenger and Cargo Limited : Y964
Quantity Packing Instructions
Packing Instructions (Passenger) : 964
Packing Instructions (Cargo) : 964
UN Number : 3082
Hazard label : 9
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

15. Regulatory Information

TSCA Status : All components on TSCA INVENTORY.
SARA Title III
Section 311/312 : Fire Hazard: No
(40 CFR 370) Pressure Hazard: No
Reactivity Hazard: No
Immediate Hazard: Yes
Delayed Hazard: Yes

California Proposition 65 : This product contains, or may contain, trace quantities of a substance(s) known

to the state of California to cause cancer and/or reproductive toxicity.

16. Other Information

References

International Chemical Safety Cards (ICSC)

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Mimaki Engineering Corporation.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

Mimaki Engineering Corporation assumes no legal responsibility for use or reliance upon this information.

Revision history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2011/08/29</td>
<td>First issue.</td>
</tr>
<tr>
<td>2.0</td>
<td>2012/02/24</td>
<td>Revised 3, 8 and 9.</td>
</tr>
</tbody>
</table>