

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Name of the product Solvent ink fluid in cartridge, TS ink SPC-0438Y  
Type Solvent type pigment ink fluid Y

Manufacturer's Name Mimaki Engineering Co.,Ltd.  
Supplier Address 1333-3, Kazawa, Tomi-shi, Nagano 389-0514, Japan  
Phone Number / Fax 81-268-64-2413 / 81-268-64-6025  
Contact Person Masaru Ohnishi (Inks & Media Dept.)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Specific chemical identity Mixture  
Poisonous and Deleterious Substances Control Law Not applicable

#### Hazardous components

| Chemical or common name | CAS NO.  | EINECSS NO. | Concentration (wt%) |
|-------------------------|----------|-------------|---------------------|
| Cyclohexanone           | 108-94-1 | 203-631-1   | 5.0 to 0.1          |

#### EU classification

| Chemical or common name | Classification | Indication                  |
|-------------------------|----------------|-----------------------------|
| Cyclohexanone           | R10 • Xn;R20   | [Xi] • R : 10-20 • S(2-)-25 |

### 3. HAZARDS IDENTIFICATION

Classified name Flammable liquid, acute toxic substance  
Hazard comments Stagnant vapor may cause fire.  
May cause organic solvent poisoning.  
Do not inhale. Inhalation may cause any of the following symptoms:  
Dizziness, headache  
Slight anesthesia  
Irritation to eyes, skin or respiratory tract

### 4. FIRST AID MEASURES

Eye Flush eyes with plenty of water for at least 15 minutes.  
Consult a doctor immediately.

Skin contact Immediately remove from skin with cloth.  
Flush thoroughly with plenty of water and soap or skin detergent.  
Do not use solvent or thinner.  
Consult a doctor in case of change of appearance or ache.

Inhalation If inhaled, immediately remove to fresh air and keep warm and calm. If breathing irregularly or not breathing, give artificial respiration. Keep from swallowing vomit.  
Consult a doctor immediately.



Swallowing            If swallowed, keep calm and consult a doctor immediately.  
Keep from swallowing vomit.

## 5. FIRE FIGHTING MEASURES

Extinguishers        CO<sub>2</sub>, foam, powder, dry sand  
Method                Use proper protection (heat-resisting clothes, etc.).  
Promptly remove flammables.  
Never splash water.

## 6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.)  
If Collect spills in a sealing container and remove to safe place.  
Dispose of waste according to legal instructions.  
Promptly remove ignitable, hot, or flammable items.  
Prepare proper fire extinguishers for accidental ignition.  
Use plastic or other equipment to prevent sparks during recovery operation.  
Use dry sand, dirt or other nonflammable absorber.  
Avoid discharge to rivers and environmental effects.

## 7. HANDLING AND STORING

Handling precautions Handle in well-ventilated area.  
Prohibit use of fire, sparks or heat source.  
Ground equipment against electrostatics and use explosion-proof electric equipment.  
Use spark-proof tools.  
Keep used cloths, waste paints or spray dusts in water until disposal.  
Use proper protection (gloves, masks, aprons, goggles, etc.)  
Use local exhaust system and proper protection if working in closed area.  
Storing precautions    Keep from sunlight.  
Store in well-ventilated area.  
Keep from open fire or heat source.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Equipment            Use explosion-proof handling equipment.  
Use exhaust system to prevent vapor build-up.  
Ground transporting, scooping, agitating or other liquid handling equipment.  
Keep heat or fire sources from handling area.  
If working indoors, use automatic coating machine or other proper

equipment to protect workers from direct exposure or use local exhaust system to protect workers from exposure.

Protective gear      Eyes:            Wear eye shields.  
                              Skin:             Wear gloves that resist organic solvents and chemicals.  
                              Inhalation:    Wear gas masks for organic gases. Wear ventilation masks when working in closed area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                        |                 |
|------------------------|-----------------|
| Condition (at 25 )     | Liquid          |
| Color                  | Y Color         |
| Odor                   | Solvent odor    |
| Boiling point          | 120°C or higher |
| Vapor pressure Pa (°C) | -               |
| Apor density (at 20°C) | 0.968±0.100     |
| pH                     | -               |
| Flash point            | 68.6°C          |
| Ignition point         | 165°C or higher |
| Flammable point        | -               |
| Others                 | None            |

## 10. STABILITY AND REACTIVITY

Material of contact hazard      None  
 Harmful gas from combustion    CO, low-molecular monomer or other harmful gases may occur.  
 Other information on reactivity    No hazardous reactivity under standard conditions  
 Other information on hazards      None

## 11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

| Material      | Control condensation | AGGIH (TLV) | LARC class | Other hazar LD50 (oral) |
|---------------|----------------------|-------------|------------|-------------------------|
| Cyclohexanone | 25ppm                | 20ppm       | 3          | rat:1535µl/kg           |

[Other hazard information on components]    None

[Other hazard information on product]        Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

## 12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

## 13. DISPOSAL CONSIDERATIONS

Have waste liquids, containers and other materials disposed of by licensed industrial waste contractors.

Keep waste liquids from flushing containers, machines or other equipment from flowing directly to the ground or drainage.

Dispose of wastes from drainage, combustion, etc, in compliance with laws and regulations on waste disposal or cleaning, or have them disposed of by contractors.

To avoid harmful gases, do not use incinerators without flushing systems to burn wastes and other materials.

## 14. TRANSPORT INFORMATION

|                  |                                              |
|------------------|----------------------------------------------|
| Common           | Follow handling and storing precautions.     |
| Land transport   | Follow legal requirements on transportation. |
| Marine transport | Follow the Ship's Safety Law.                |
| Air transport    | Follow the Aviation Law.                     |
| UN Number        | Not applicable.                              |

## 15. REGULATORY INFORMATION

|               |                                                                                       |
|---------------|---------------------------------------------------------------------------------------|
| EU Symbol:    | F Flammable, Xi Irritant, Xn Harmful                                                  |
| Risk Phrases: | R10 Flammable.<br>R20/R21 Harmful if inhaled or swallowed.<br>R36 Irritating to eyes. |

## 16. NOTES

This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.