

# Safety Data Sheets

## 1. Identification

Product Name : PRE FILL UP SOLUTION  
Order No. : FU010-Z-22  
Ink Ver. : 1  
General Use : Pre fill up solution for ink jet printer  
Product Description : Solvent clear liquid  
SDS Number : 037-C170266  
Manufacture  
Company Name : Mimaki Engineering Co., Ltd.  
Address : 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN  
Telephone No. : +81-268-64-2413  
Importer / Distributor Established in USA  
Company Name : MIMAKI USA, INC.  
Address : 150 Satellite Boulevard, suite A, Suwanee, Georgia 30024, U.S.A.  
Telephone No. : +1-678-730-0170  
Emergency Telephone No. : +1 866 928 0789 (within United States only, Toll free)  
+1 215 207 0061

## 2. Hazards Identification

### [GHS Classification]

#### Physical Hazards

Flammable Liquids : Category 4

#### Health Hazards

Acute Toxicity – Oral : Not classified

Acute Toxicity – Dermal : Not classified

Acute Toxicity – Inhalation : Not classified

Eye Damage / Irritation : Category 2

Specific Target Organ Toxicity : Category 3

(Single Exposure) (Respiratory irritation, drowsiness or dizziness)

#### Environmental Hazards

Hazardous to the Aquatic : Not classified

Environment - Acute Hazard

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Hazardous to the Aquatic : Not classified

Environment - Long Term Hazard

The above list does not include category being non-classifiable or not-applicable.

### [GHS Label Elements]

Symbol



Signal Word

Warning

Hazard Statements

- H227 Combustible liquid
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness

Precautionary Statements

[Prevention]

- P210 Keep away from open flames and other ignition sources. No smoking.
- P261 Avoid breathing gas/mist/vapours.
- P264 Wash hands and eyes thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use Alcohol-resistant-related fire foam for extinguish.

[Storage]

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed.  
Keep cool.

P405 Store locked up.

[Disposal]

P501 Dispose of contents/container in accordance with  
local/regional/national/international regulation (to be specified).

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## HMIS Rating (scale 0 – 4)

Health = 1

Flammability = 2

Reactivity = 1

Protective Equipment = B

|   |                      |
|---|----------------------|
| ① | Health               |
| ② | Flammability         |
| ① | Reactivity           |
| B | Protective Equipment |

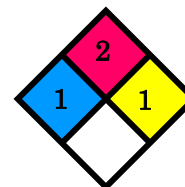
## NFPA Rating (scale 0 – 4)

Health = 1

Flammability = 2

Instability = 1

Special = 0



## CANADIAN WHMIS SYMBOLS

Not applicable (Manufactured article)

### 3. Composition / Information on Ingredients

| No | Chemical Name                       | wt%   | CAS No.    | Chemical Formula                              |
|----|-------------------------------------|-------|------------|---|
| 1  | Dipropylene glycol monomethyl ether | 35-45 | 34590-94-8 | C <sub>7</sub> H <sub>16</sub> O <sub>3</sub> |
| 2  | Diethylene glycol diethyl ether     | 35-45 | 112-36-7   | C <sub>8</sub> H <sub>18</sub> O <sub>3</sub> |
| 3  | Triethylene glycol monomethyl ether | 15-25 | 112-35-6   | C <sub>7</sub> H <sub>16</sub> O <sub>4</sub> |

OSHA Hazardous

Components 1 is hazardous components.

Components

(29 CFR 1910. 1200)

### 4. First Aid Measures

|                            |   |
|----------------------------|---|
| Inhalation                 | : Remove subject to ventilated fresh air. If not breathing, give artificial respiration right away. If breathing is difficult, give oxygen. Seek immediate medical attention. |
| Eye Contact                | : Immediately flush with room temperature, low pressure, clean water for at least 15 minutes. Seek medical attention if eye irritation continues.                             |
| Skin Contact               | : Wash surface areas with soap and water. Wash soiled clothing before rewearing. Consult a physician if irritation continues.   |
| Ingestion                  | : Seek medical advice; and attention if stomach continues to be upset. If swallowed, do not induce vomiting.  |
| Protection To First-Aiders | : Wear a tool for appropriate protection. Ventilate.  |

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### 5. Fire Fighting Measures

|                            |  |
|----------------------------|--|
| Flammable Properties       | : Combustible liquid under Hazard Communication Standard (HCS, U.S.A).<br>Flash point: about 76°C (Cleveland open cup)<br>Autoflammability: None<br>Explosive limits: 1.3~10.4v/v% as dipropylene glycol mono-methyl ether   |
| Extinguishing Media        | : Water spray, dry chemical, carbon dioxide or, alcohol foam   |
| Fire Fighting Instructions | : Extinguish to use fire fighting media or plentiful fog water. Put protection wear without fail in case of fire fighting work; do not work in the leeward.<br>Wear full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus). |

### 6. Accidental Release Measures

|                             |   |
|-----------------------------|---|
| Personal Precautions        | : Remove the person of the leeward. Keep away the person from periphery of the place of the leakage. Ventilate sufficiently during clean-up in case of inside of a house.<br>Eye or Skin protection required during clean-up. Use proper ventilation. |
| Environmental Precautions   | : Do not release to sewer, surface- or ground-water.  |
| Methods for cleaning up     | : If a spill occurs, use sponges to wipe-up ink, then rinse area with damp cloth. Place waste in closed container for disposal. Do not dispose of waste to the sewer. Wash hands with soap and water.   |
| Reference to other sections | : Please refer SECTION 13 for disposal.   |

### 7. Handling and Storage

|          |   |
|----------|---|
| Handling | : Use proper ventilation and no fire in work place. Use spark-proof tools. Keep out of reach of children and do not drink ink. Make sure cartridge or bottle is dry. Do not dismantle cartridge.<br>Avoid contact with skin, eyes or clothing. In the case of skin contact, |
|----------|---|

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wash with soap and water.

Storage : Do not store the cartridge or bottle in high or freezing temperatures. Keep cartridge or bottle out of direct sunlight. Do not store the cartridge or bottle with oxidizing agents or explosives.

## 8. Exposure Controls / Personal Protection

### Exposure Limit Values

| No | Chemical Name                       |                      | TWA                            | STEL                           | Ceiling | Skin | SEN  |
|----|-------------------------------------|----------------------|--------------------------------|--------------------------------|---------|------|------|
| 1  | Dipropylene glycol monomethyl ether | OSHA PEL             | 600mg/m <sup>3</sup><br>100ppm | 900mg/m <sup>3</sup><br>150ppm | N.E.    | N.E. | N.E. |
|    |                                     | ACGIH TLV            | 100ppm                         | 150ppm                         | N.E.    | N.E. | N.E. |
|    |                                     | California OELs (8h) | 600mg/m <sup>3</sup><br>100ppm | N.E.                           | N.E.    | N.E. | N.E. |
| 2  | Diethylene glycol diethyl ether     | California OELs (8h) | 33mg/m <sup>3</sup><br>5ppm    | N.E.                           | N.E.    | N.E. | N.E. |

### Exposure Controls

#### Occupational Exposure Controls

Engineering Controls : Use exhaust ventilation to keep airborne concentration below exposure limits.

#### Personal Protection

Respiratory Protection : Put self-contained breathing apparatus or organic canister mask.



Hand Protection : Put safety gloves that resist organic solvents and chemicals.



Eye Protection : Wear coverall, chemical goggles and face shield when handling.



Skin Protection : To prevent any contact, wear impervious clothing such as gloves,

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apron, boots, or whole body suits made from neoprene, as appropriate.

Environmental Exposure Controls

: Not established

### 9. Physical and Chemical Properties

|   |                  |   |
|---|------------------|---|
| Appearance                                | - Physical State | : Liquid  |
|   | - Color          | : Clear   |
| Odor                                      |                  | : Slightly  |
| pH  |                  | : Not Applicable  |
| Boiling Point / Boiling Range             |                  | : No data available   |
| Melting Point / Melting Range             |                  | : No data available   |
| Flash Point                               |                  | : 76 °C / 169 ° F (Cleveland open cup method, JIS K2265-4 ) |
| Flammability (Solid, Gas)                 |                  | : Not Applicable  |
| Explosive Limits                          |                  | : No data available   |
| Relative Density                          |                  | : No data available   |
| Solubility                                |                  | : No data available   |
| Water Solubility                          |                  | : Slightly soluble  |
| Partition Coefficient (n-octanol / Water) |                  | : No data available   |
| Viscosity                                 |                  | : No data available   |
| Vapor Density                             |                  | : No data available   |

### 10. Stability and Reactivity

|   |  |
|---|--|
| Conditions to Avoid                             | : High and freezing temperatures                   |
| Stability                                       | : Stable under normal temperature                  |
| Materials to Avoid                              | : Oxidizers and explosives                         |
| Hazardous Reactions /<br>Decomposition Products | : Harmful gas may produce when the fire broke out. |

### 11. Toxicological Information

|                |           |                    |
|----------------|-----------|--------------------|
| Acute Toxicity | Oral LD50 | : >2500mg/kg (rat) |
|----------------|-----------|--------------------|

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|                           |   |
|---------------------------|---|
|                           | Dermal LD50 : >2000mg/kg (rat)  |
| Eye Irritation            | : Mild irritant (Rabbit, OECD405)   |
| Skin Irritation           | : Mild irritant (Rabbit OECD 404)   |
| Corrosivity               | : Not meet the criteria for classification according to EU Directive 1999/45/EC |
| Skin Sensitization        | : Non-sensitizer (LLNA, OECD429)  |
| Mutagenicity              | : Not meet the criteria for classification according to EU Directive 1999/45/EC |
|                           | : Negative (by Ames Test)   |
| Carcinogenicity           | : Not meet the criteria for classification according to EU Directive 1999/45/EC |
|                           | : Not contain any substances listed in IARC Monographs (1,2A and 2B)            |
| Toxicity for reproduction | : Not meet the criteria for classification according to EU Directive 1999/45/EC |

### 12. Ecological Information

|                                    |   |
|------------------------------------|---|
| Ecotoxicity                        | : No data available on the adverse effects of this ink on the environment |
| Persistence and Degradability      | : No data available on the adverse effects of this ink on the environment |
| Bioaccumulative Potential          | : No data available on the adverse effects of this ink on the environment |
| Results of PBT and vPvB assessment | : Has not carried out PBT and vPvB assessment                             |
| Other Adverse Effects              | : No data available on the adverse effects of this ink on the environment |

### 13. Disposal Considerations

: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Comply with all USA, national and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

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### 14. Transport Information

|  |  |
|--|--|
|  | Check a thing without a leak in a container.   |
|  | Perform prevention of collapse of cargo surely.  |
| US DOT Information   | : Not regulated as dangerous goods for transport. *1<br>*1 Class combustible liquid (NA1993), Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities |
| UN number  | : Not Applicable   |
| UN proper shipping name  | : Not Applicable   |
| Transport hazard class   | : Not Applicable   |
| Packing group  | : Not Applicable   |
| Environmental hazards  | : Not Applicable   |
| Special precautions for user   | : Not Applicable   |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | : Not Applicable   |

### 15. Regulatory Information

|                         |  |
|-------------------------|--|
| OSHA Status             | : Dipropylene glycol monomethyl ether is hazardous under 29 CFR 1910. 1200. (CAS No. 34590-94-8) |
| TSCA Status             | : All components on TSCA INVENTORY.  |
| TSCA Section 4(a)       | : Not regulated  |
| Final Test Rules        |  |
| Regulated:              |  |
| TSCA Section 5          | : Ingredient: Diethylene glycol diethyl ether(CAS No. 112-36-7)                                  |
| Significant New Use     | Reference: 76FR40850   |
| Rule Regulation:        |  |
| proposed                |  |
| TSCA Section 8(a)       | : Ingredient: Dipropylene glycol monomethyl ether  |
| Preliminary Assessment  | (CAS No.34590-94-8)  |
| Information Rule(PAIR)  | Reference: 60FR34879 (The reporting date, 10/3/1995 has passed.)                                 |
| TSCA Section 12(b)      | : Ingredient: Diethylene glycol diethyl ether(CAS No. 112-36-7)                                  |
| One-Time Export         | Reference: TSCA 5 Proposed SUNR.   |
| Notification Regulated: |  |



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|   |  |
|---|--|
| Clean Air Act Section 112, Hazardous Air Pollutants | : Diethylene glycol diethyl ether(CAS No. 112-36-7)<br>Triethylene glycol monomethyl ether(CAS No. 112-35-6)   |
| CERCLA Reportable Quantity (40 CFR 302)             | : Diethylene glycol diethyl ether(CAS No. 112-36-7)<br>RQ : Not established<br>Triethylene glycol monomethyl ether(CAS No. 112-35-6)<br>RQ : Not established |
| SARA TitleIII Section 302 (40 CFR 355)              | : Not Applicable   |
| Section 313 (40 CFR 372)                            | : Diethylene glycol diethyl ether (CAS No. 112-36-7)<br>Triethylene glycol monomethyl ether (CAS No. 112-35-6)   |
| California Proposition 65                           | : Not regulated  |
| Canada Information                                  | : WHMIS Controlled Product:<br>Not applicable (Manufactured article)   |
| Australia Information                               | : Statement of Hazardous Nature:<br>Classified as Toxic and Irritant according to criteria of NOHSC  |
| New Zealand Information                             | : Hazardous Substances and New Organisms Act 1996:<br>Not regulated  |
| Others  | : Please refer to any other federal, state and local regulations.  |

### 16. Other Information

|            |  |
|------------|--|
| References | 1) Occupational Safety & Health Administration (OSHA)<br>Hazard Communication Standard (HCS)<br>2) US Environmental Protection Agency(EPA)<br>Substance Registry Services(SRS) |
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