

Safety Data Sheets

1. Identification

Product Name	: Flushing Liquid / Pre-fill up solution for solvent
Order No.	: M013237
General Use	: Flushing Liquid / Pre fill up solution for ink jet printer
Product Description	: Solvent clear liquid
SDS Number	: 037-C170725
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.	: +1-678-730-0700
Emergency Telephone No.	: +81-268-64-2281

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

Skin Corrosion / Irritation : Category 2

Eye Damage / Irritation : Category 2

Sensitization – Respiratory : Not classified

Sensitization – Skin : Not classified

Germ Cell Mutagenicity : Not classified

Carcinogenicity : Not classified

Toxic to Reproduction : Not classified

Specific Target Organ Toxicity : Category 3

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

Safety Data Sheets

Specific Target Organ Toxicity (Repeated Exposure) : Not classified

Aspiration Hazard : Not classified

Environmental Hazards

Hazardous to the Aquatic Environment - Acute Hazard : Not classified

Environment - Acute Hazard

Hazardous to the Aquatic Environment - Long Term Hazard : Not classified

Environment - Long Term Hazard

Hazardous to the Ozone Layer : Not classified

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
- H315 Causes skin irritation
- 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]

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- 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.
- P321 Specific treatment (see 4-Response on our website/
SDS URL: www.mimaki.co.jp/msds).
- P332+P313 If skin irritation occurs: Get medical advice/attention.

Safety Data Sheets

P337+P313 If eye irritation persists: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use Alcohol-resistant-related fire foam for extinguish.
 [Storage]
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 [Disposal]
 P501 Dispose of contents and container in accordance with local, regional, national and international regulation(to be specified).

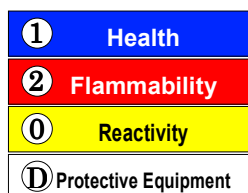
HMIS Rating (scale 0 – 4)

Health = 1

Flammability= 2

Reactivity = 0

Protective Equipment =D



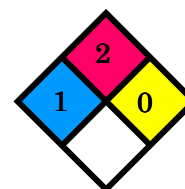
NFPA Rating (scale 0 – 4)

Health =1

Flammability = 2

Instability = 0

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 ₇ H ₁₆ O ₃
2	Diethylene glycol diethyl ether	35-45	112-36-7	C ₈ H ₁₈ O ₃
3	Triethylene glycol monomethyl ether	15-25	112-35-6	C ₇ H ₁₆ O ₄

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.

5. Fire Fighting Measures

Flammable Properties	: Combustible liquid under Hazard Communication Standard (HCS, U.S.A). Flash point: about 76°C (Closed cup) Autoflammability: None 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. 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. 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. Avoid contact with skin, eyes or clothing. In the case of skin contact, 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.

Safety Data Sheets

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 ³ 100ppm	900mg/m ³ 150ppm	N.E.	N.E.	N.E.
		ACGIH TLV	100ppm	150ppm	N.E.	N.E.	N.E.
		California OELs (8h)	600mg/m ³ 100ppm	N.E.	N.E.	N.E.	N.E.
2	Diethylene glycol diethyl ether	California OELs (8h)	33mg/m ³ 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, 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		: Slight solvent odor
pH		: Not Applicable
Boiling Point / Boiling Range		: Not available
Melting Point / Melting Range		: Not available
Flash Point		: About 76°C (Closed cup)
Flammability (Solid, Gas)		: Not Applicable
Explosive Limits		: 1.3~10.4v/v% as Dipropylene glycol monomethyl ether
Relative Density		: Not available
Solubility		: Not available
Water Solubility		: Soluble
Partition Coefficient (n-octanol / Water)		: Not available
Viscosity		: Less than 5mPa · s at20°C
Vapor Density		: Greater than 1 (air=1)

10. Stability and Reactivity

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

11. Toxicological Information

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

14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

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

Safety Data Sheets

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:	
Clean Air Act Section	: Diethylene glycol diethyl ether(CAS No. 112-36-7)
112, Hazardous Air	Triethylene glycol monomethyl ether(CAS No. 112-35-6)
Pollutants	
CERCLA	: Diethylene glycol diethyl ether(CAS No. 112-36-7)
Reportable Quantity	RQ : Not established
(40 CFR 302)	Triethylene glycol monomethyl ether(CAS No. 112-35-6)
	RQ : Not established
SARA TitleIII	
Section 302	: Not Applicable
(40 CFR 355)	
Section 313	: Diethylene glycol diethyl ether (CAS No. 112-36-7)
(40 CFR 372)	Triethylene glycol monomethyl ether (CAS No. 112-35-6)
California Proposition	: Not regulated
65	
Others	: Please refer to any other federal, state and local regulations.



Safety Data Sheets

Product Name: Flushing Liquid /
Pre-fill up solution for solvent
SDS No. 037-C170725
First issue: 2015/09/07
Revised:

16. Other Information

References

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

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.