

# Safety Data Sheets

## 1. Identification

Product Name : Flushing Liquid 01  
Order No. : FL001-Z-22  
General Use : Cleaning solution for ink jet printer  
Product Description : Aqueous liquid  
SDS Number : 037-C122011  
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 Australia  
Company Name : MIMAKI AUSTRALIA PTY LTD.  
Address : Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia  
Telephone No. : + 61-2-8036-4500  
Emergency Telephone No. : +61 2 8014 4558 (within Australia only)  
18000 74234 (within Australia only)  
+65 3158 1074

## 2. Hazards Identification

[Classification of the substance or mixture]

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Physical Hazards

Flammable Liquids : Not classified

Health Hazards

Acute Toxicity – Dermal : Category 4

Eye Damage / Irritation : Category 2A

Legend: Classified by Chemwatch

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

[Label Elements]

Symbol



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Signal Word

Warning

Hazard Statements

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

Precautionary Statements

[Prevention]

P280 Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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 or doctor/physician if you feel unwell.

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

P363 Wash contaminated clothing before reuse.

[Storage]

Not Applicable.

[Disposal]

P501 Dispose of contents/container in accordance with local regulations.

### 3. Composition / Information on Ingredients

[Substances]

See section below for composition of Mixtures

Mixtures

No	Chemical Name	Wt%	CAS No.
1	diethylene glycol diethyl ether	50-70	112-36-7
2	Alcohol solvents series B	5-20	Not Available
3	water	Residue	7732-18-5

### 4. First Aid Measures

[Description of first aid measures]

Eye Contact

: If this product comes in contact with the eyes:

Wash out immediately with fresh running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be

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	undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	: If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	: Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Indication of Immediate Medical Attention and Special Treatment Needed	: Treat symptomatically.

### 5. Fire Fighting Measures

#### [Extinguishing Media]

Extinguishing Media	: Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.
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#### [Special hazards arising from the substrate or mixture]

Fire Incompatibility	: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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#### [Advice for firefighters]

Fire Fighting	: Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
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Fire/Explosion Hazard	: Combustible.
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Slight fire hazard when exposed to heat or flame.  
 Heating may cause expansion or decomposition leading to violent rupture of containers.  
 On combustion, may emit toxic fumes of carbon monoxide (CO).  
 May emit acrid smoke.  
 Mists containing combustible materials may be explosive.  
 Combustion products include: carbon dioxide (CO<sub>2</sub>), other pyrolysis products typical of burning organic material.  
 May emit poisonous fumes. May emit corrosive fumes.

HAZCHEM : Not Applicable

### 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures : See section 8.

Environmental precautions : See section 12.

[Methods and material for containment and cleaning up]

Minor Spills : Remove all ignition sources.  
 Clean up all spills immediately.  
 Avoid breathing vapours and contact with skin and eyes.  
 Control personal contact with the substance, by using protective equipment.  
 Contain and absorb spill with sand, earth, inert material or vermiculite.  
 Wipe up.  
 Place in a suitable, labelled container for waste disposal.

Major Spills : Clear area of personnel and move upwind.  
 Alert Fire Brigade and tell them location and nature of hazard.  
 Wear breathing apparatus plus protective gloves.  
 Prevent, by any means available, spillage from entering drains or water course.  
 No smoking, naked lights or ignition sources.  
 Increase ventilation.  
 Stop leak if safe to do so.

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Contain spill with sand, earth or vermiculite.

Collect recoverable product into labelled containers for recycling.

Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labelled drums for disposal.

Wash area and prevent runoff into drains.

If contamination of drains or waterways occurs, advise emergency services.

### 7. Handling and Storage

#### [Precautions for safe handling]

##### Safe handling

: Avoid all personal contact, including inhalation.

Wear protective clothing when risk of exposure occurs.

Use in a well-ventilated area.

Avoid contact with incompatible materials.

When handling, DO NOT eat, drink or smoke.

Keep containers securely sealed when not in use.

Avoid physical damage to containers.

Always wash hands with soap and water after handling.

Work clothes should be laundered separately. Launder contaminated clothing before re-use.

DO NOT allow clothing wet with material to stay in contact with skin

#### [Conditions for safe storage, including any incompatibilities]

##### Storage

: Store in original containers.

##### incompatibility

Keep containers securely sealed.

No smoking, naked lights or ignition sources.

Store in a cool, dry, well-ventilated area.

Store away from incompatible materials and foodstuff containers.

Protect containers against physical damage and check regularly for leaks.

Observe manufacturer's storage and handling recommendations contained within this SDS.

Avoid reaction with oxidising agents.

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### 8. Exposure Controls / Personal Protection

[Control parameters]

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA: Not Available.

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
diethylene glycol diethyl ether	Bis(2-ethoxyethyl) ether; (Diethyl carbitol)	15 mg/m <sup>3</sup>	160 mg/m <sup>3</sup>	980 mg/m <sup>3</sup>

Ingredient	Original IDLH	Revised IDLH
diethylene glycol diethyl ether	Not Available	Not Available
Alcohol solventsseries B	Not Available	Not Available
water	Not Available	Not Available

#### Exposure Controls

- Appropriate : General exhaust is adequate under normal operating conditions.
- Engineering Controls Local exhaust ventilation may be required in specific circumstances.  
Provide adequate ventilation in warehouse or closed storage areas.

#### Personal protection

- Eye and face protection : Safety glasses with side shields.  
Chemical goggles.  
Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
- Hands/feet protection : Wear chemical protective gloves, e.g. PVC.  
Wear safety footwear or safety gumboots, e.g. Rubber
- Body protection : P.V.C. apron.
- Respiratory Protection : Consult with a health and safety professional for specific respirators appropriate for your use.
- Thermal hazards : Not Available.



### 9. Physical and Chemical Properties

[Information on basic physical and chemical properties]

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Appearance	- Physical State	: liquid
	- Color	: Colorless transparent
Odor		: Slight
Odour threshold		: Not Available
pH (as supplied)		: 6.5-8.5
Melting point / freezing point (°C)		: Not Available
Initial boiling point and boiling range (°C)		: Not Available
Flash point (°C)		: Not Available
Evaporation rate		: Not Available
Flammability		: Not Available
Upper Explosive Limit (%)		: Not Available
Lower Explosive Limit (%)		: Not Available
Vapour pressure (kPa)		: Not Available
Solubility in water (g/L)		: Not Available
Vapour density (Air = 1)		: Not Available
Relative density (Water = 1)		: 0.97-0.99
Partition coefficient n-octanol / water		: Not Available
Auto-ignition temperature (°C)		: Not Available
Decomposition temperature		: Not Available
Viscosity (cSt)		: Not Available
Molecular weight (g/mol)		: Not Available
Taste		: Not Available
Explosive properties		: Not Available
Oxidising properties		: Not Available
Surface Tension (dyn/cm or mN/m)		: Not Available
Volatile Component (%vol)		: Not Available
Gas group		: Not Available
pH as a solution (1%)		: Not Available
VOC g/L		: Not Available

### 10. Stability and Reactivity

Reactivity	: Stable under normal conditions of use.
Chemical Stability	: Unstable in the presence of incompatible materials. Product is considered stable.

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Possibility of Hazardous : Hazardous polymerisation will not occur.

Reactions

Conditions to Avoid : See section 7

Incompatible Materials : See section 7

Hazardous : See section 5

Decomposition

### 11. Toxicological Information

#### Acute Toxicity

	TOXICITY	IRRITATION
As a product	Not Available	Not Available
diethylene glycol	Dermal (rabbit) LD50: 1410 mg/kg	Eye (rabbit): 50 mg moderate
diethyl ether	Oral (rat) LD50: 4970 mg/kg	-
water	Oral (rat) LD50: >90000 mg/kg	Not Available

[Information on toxicological effects]

Inhaled : The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Ingestion : The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum.

Skin Contact : Skin contact with the material may be harmful; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.



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Eye	: This material can cause eye irritation and damage in some persons.
Chronic	: Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.
Medical Conditions	: DIETHYLENE GLYCOL DIETHYL ETHER
Aggravated by Exposure	General anaesthetic, gastrointestinal, kidney, urine, bladder changes reported. WATER No significant acute toxicological data identified in literature search.
Skin	: Data Not Available to make classification
Irritation/Corrosion	
Serious Eye	: Category 2A, as a product
Damage/Irritation	
Respiratory or Skin sensitisation	: Data Not Available to make classification
Mutagenicity	: Data Not Available to make classification
Carcinogenicity	: Data Not Available to make classification
Reproductivity	: Data Not Available to make classification
STOT – Single Exposure	: Data Not Available to make classification
STOT – Repeated Exposure	: Data Not Available to make classification
Aspiration Hazard	: Data Not Available to make classification

## 12. Ecological Information

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.

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value
diethylene glycol diethyl ether	LC50	96	Fish	342.873mg/L
	EC50	96	Algae or other aquatic plants	1712.513mg/L
	EC50	384	Crustacea	79.457mg/L

Legend: EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated)

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Mobility : No information available for the product.

Persistence and : No information available for the product.

Degradability

Bioaccumulative : No information available for the product.

Potential

Other Adverse Effects : No information available for the product.

### 13. Disposal Considerations

Disposal Methods : Dispose in accordance with all applicable regulations. Empty containers may contain product residue.

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.

Land transport (DOT) : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS  
(ICAO-IATA / DGR)

Sea transport : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS  
(IMDG-Code / GGVSee)

Transport in bulk : Not Applicable

according to Annex II of

MARPOL and the IBC

code

Marine Pollutant : No

HAZCHEM : Not Applicable

## 15. Regulatory Information

[Safety, health and environmental regulations / legislation specific for the substance or mixture]

Chemical Name	Regulatory
DIETHYLENE GLYCOL DIETHYL ETHER(112-36-7)	Australia Inventory of Chemical Substances (AICS)
WATER(7732-18-5)	Australia Inventory of Chemical Substances (AICS)

[National Inventory]

Australia - AICS	: Y
Canada - DSL	: Y
China - IECSC	: Y
Europe - EINEC / ELINCS / NLP	: Y
Japan - ENCS	: Y
Korea - KECI	: Y
New Zealand - NZIoC	: Y
Philippines - PICCS	: Y
USA - TSCA	: Y

Y = All ingredients are on the inventory

## 16. Other Information

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

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