

Safety Data Sheets

1. Identification

Product Name	: Flushing Liquid 04
Item No.	: MP-M019269 / MP-M019271
General Use	: Washing liquid of ink
Product Description	: Aqueous liquid
SDS Number	: 037-C201544
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	: 4851 Thurmon Tanner Parkway, STE 100 Flowery Branch, GA 30542, 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 : Not classified

Health Hazards

Acute Toxicity – Oral : Not classified

Skin Corrosion / Irritation : Not classified

Eye Damage / Irritation : Not classified

Sensitization – Skin : Category 1

Toxic to Reproduction : Category 2

Specific Target Organ Toxicity : Category 1 (kidney, liver)
(Repeated Exposure)

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

[GHS Label Elements]

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Symbol



Signal Word

Danger

Hazard Statements

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure (kidney, liver).

Precautionary Statements

[Prevention]

P201 Obtain SDS (Safety Data Sheet) and printer's Operation Manual before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe gas/mist/vapors.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

[Response]

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

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash before reuse.

[Storage]

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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3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Alcohol derivative	40-50%	Trade Secret
2	Glycerols	10-20%	Trade Secret
3	Water	balance	7732-18-5

4. First Aid Measures

- Inhalation : Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician.
- Eye Contact : Flush eyes with plenty of water for at least 15 minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing. Get immediate medical attention.
- Skin Contact : Wash with plenty of soap and water. If skin irritation or rash occurs:
Get medical advice/attention. Take off contaminated clothing and wash before re-use.
- Ingestion : If swallowed, get medical attention.
- Most Important Symptoms/Effects
- Acute : allergic skin reaction.
- Delayed : allergic skin reaction, kidney damage, liver damage
- Indication of Immediate : Treat symptomatically and supportively.
- Medical Attention and Special Treatment Needed, If Needed

5. Fire Fighting Measures

- Flammable Properties : Not flammable under normal condition.
- Extinguishing Media : Dry chemical or carbon dioxide.
- Unsuitable Extinguishing Media : Do not scatter spilled material with high-pressure water streams.
- Hazardous Combustion Products : **Combustion:** Irritant gas, carbon monoxide
- Fire Fighting Measures : Move container from fire area if it can be done without risk.

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Do not scatter spilled material with high-pressure water streams.
 Cool containers with water spray until well after the fire is out.
 Stay away from the ends of tanks. Avoid inhalation of material or combustion by-products.

Special Protective Equipment and Precautions for Firefighters : Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures : Wear personal protective clothing and equipment, see Section 8.
 Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up : Eliminate all ignition sources if safe to do so.
 Stop leak if possible without personal risk. Reduce vapors with water spray.
Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.
Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

7. Handling and Storage

Precautions for Safe Handling : Avoid breathing dust, mist, fumes or vapors.
 Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product.
 Wear protective gloves and eye/face protection.
 Wash thoroughly after handling.
 Contaminated work clothing should not be allowed out of the workplace.

Conditions for Safe Storage, including any Incompatibilities : Store and handle in accordance with all current regulations and standards.
 Store in a well-ventilated place. Keep container tightly closed.

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Keep cool. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure Limit Values

No	Chemical Name		TWA	STEL	Ceiling	Skin	SEN
1	Glycerols	OSHA PEL	15mg/m ³	N.E.	N.E.	N.E.	N.E.
		ACGIH TLV	10mg/m ³	N.E.	N.E.	N.E.	N.E.

Exposure Controls

Occupational Exposure Controls

Engineering Controls : Not special measures required.

Personal Protection

Respiratory Protection : Not required under suitable use as setting the cartridge on the printer; however, self-contained breathing apparatus or organic canister mask is sufficient when used for work.

Respiratory Protection : Consult with a health and safety professional for specific respirators appropriate for your use.



Hand Protection : Wear appropriate chemical resistant gloves.



Eye Protection : Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.



Skin Protection : Wear appropriate chemical resistant clothing.



Environmental Exposure Controls

: Not established.

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9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: Clear
Odor		: Slight odor
pH		: 7-10 (25 degree C)
Boiling Point / Boiling Range		: No data available
Melting Point / Melting Range		: No data available
Flash Point		: Not detected until 100 degree C (closed cup, ASTM D3278)
Relative Density		: about 1.10(25 degree C)
Solubility		: No data available
Water Solubility		: Complete
Viscosity		: 9-10 mPa · s (25 degree C)
VOC		: 496.1 g/l

10. Stability and Reactivity

Reactivity	: No reactivity hazard is expected.
Chemical Stability	: Stable under normal conditions of use.
Possibility of Hazardous	: Will not polymerize.
Reactions	
Conditions to Avoid	: Avoid contact with incompatible materials.
Incompatible Materials	: Acid, oxidizing agents
Hazardous Reactions /	: Combustion: Irritant gas, carbon monoxide.
Decomposition Products	

11. Toxicological Information

Acute Toxicity

Component Analysis -	: Alcohol derivative
LD50/LC50	Oral (rat) LD50 ; 12,565mg/kg
	Dermal (rabbit) LD50 ; 11,890mg/kg
	Glycerols
	Oral (rat) LD50 ; 12,600mg/kg
	Dermal (rabbit) LD50 ; 10,000mg/kg

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Inhalation LC50 Rat >570 mg/m³ 1 h

Immediate Effects	: allergic skin reaction.
Delayed Effects	: allergic skin reaction, kidney damage, liver damage
Irritation/Corrosivity	: No information available for the product.
Data	
Respiratory	: No information available for the product.
Sensitization	
Dermal Sensitization	: May cause an allergic skin reaction.
Germ Cell	: No information available for the product.
Mutagenicity	
Carcinogenicity	
Component Carcinogenicity	: No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for the component(s) of this product.
Reproductive Toxicity	: Suspected of damaging fertility or the unborn child.
Specific Target Organ	: No target organs identified.
Toxicity - Single	
Exposure	
Specific Target Organ	: kidney, liver
Toxicity - Repeated	
Exposure	
Aspiration Hazard	: Not expected to be an aspiration hazard.

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.

Component Analysis -	: Alcohol derivative
Aquatic Toxicity	Fish: 96 Hr LC50 Pimephales promelas: 75200 mg/L [flow-through]; Invertebrate: 48 Hr EC50 Daphnia magna: 84000 mg/L

Glycerols

Fish: 96 Hr LC50 Oncorhynchus mykiss: 51 - 57 mL/L [static]

Persistence and	: No information available for the product.
Degradability	
Bioaccumulation	: No information available for the product.
Mobility	: No information available for the product.

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Other Toxicity : No additional information is available.

13. Disposal Considerations

Disposal Methods : Comply with all USA, national and local regulations.
Do not dump this product into sewers, on the ground or into any body of water.

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

14. Transport Information

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

Us Department of Transportation (DOT)

Hazardous Materials : Not Applicable

Sea Transport (IMDG)

Class : Not Applicable

Packing Group (PG) : Not Applicable

UN Number : Not Applicable

Proper Shipping Name : Not Applicable

Marine Pollutant : Not Applicable

Air Transport (ICAO/IATA)

Class : Not Applicable

Packing Group(PG) : Not Applicable

UN Number : Not Applicable

Proper Shipping Name : Not Applicable

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15. Regulatory Information

OSHA Hazardous : This material is considered hazardous.

Components

(29 CFR 1910.1200)

TSCA Section 4(a) Final : Not regulated.

Test Rules Regulated

TSCA Section 8(a) : Not regulated.

Preliminary Assessment

Information Rule(PAIR)

TSCA Section12(b) : Not regulated.

One-Time Export

Notification Regulated

California Proposition 65 : Not regulated.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Alcohol derivative	Trade Secret	No	No	Yes	No	Yes
Glycerols	Trade Secret	No	Yes	Yes	Yes	Yes

Chemical Inventory Listings

Component Analysis - Inventory

Component	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Alcohol derivative	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Glycerols	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

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.

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.