Safety Data Sheets

1. Identification

Product Name	: PR-200 Maintenance Liquid
Order No.	: ML013-Z-B2/ ML013-Z-K2
General Use	: Cleaning solution for ink jet printer
Product Description	: Solvent liquid
SDS Number	: 037-C264867
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)
Emergency Telephone No.	: +1-215-207-0061

2. Hazards Identification

[GHS Classification]

Physical Hazards

Flammable Liquid	: Not classified
Pyrophoric Liquid	: Not classified

Health Hazards

Acute Toxicity - Oral	: Category 4
Toxic to Reproduction	: Category 2
Specific Target Organ Toxicity (Repeated Exposure)	: Category 1 (liver, kidneys)

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
H302 Harmful if swallowed.
H361 Suspected of damaging fertility or the unborn child
H372 Causes damage to organs through prolonged or repeated exposure (liver, kidneys).
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.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
[Response]
P308+P313 IF exposed or concerned: Get medical advice/attention.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rince mouth.
[Storage]
P405 Store locked up.
[Disposal]
P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Diethylene glycol	90-100	111-46-6

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. Take off contaminated clothing

	and wash before re-use. Get medical attention if irritation develops.
Ingestion	: If swallowed, get medical attention.
Most Important Symptoms/Effects	
Acute	: No data available.
Delayed	: reproductive effects, liver disorders, kidney disorders
Indication of Immediate Medical Attention and Special Treatment Needed, If Needed	: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flammable Properties	: Flash pint 124℃ Explosive Limits: 1.6 - 10.8 vol%
Extinguishing Media	: carbon dioxide, regular dry chemical, water spray, alcohol resistant foam
Unsuitable Extinguishing Media	: Do not scatter spilled material with high-pressure water streams
Special Hazards Arising from the Chemical	: Slight fire hazard.
Hazardous Combustion Products	: No data available.
Fire Fighting Measures	: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.
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	: 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	: Obtain SDS (Safety Data Sheet) and printer's Operation Manual before use. Do not handle until all safety precautions have been read and understood. Do not breathe gas/mist. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/clothing and eye/face protection.
Conditions for Safe Storage, including any Incompatibilities	: Store locked up.

8. Exposure Controls / Personal Protection

Exposure Limit Values	: ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.
Component Biological Limit Values	: There are no biological limit values for the component(s) of this product.

Exposure Controls

Occupational Exposure Controls

Appropriate	: Provide local exhaust or process enclosure ventilation system. Ensure

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Engineering Controls compliance with applicable exposure limits.

Personal Protection

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 glasses.

Skin Protection : Wear appropriate chemical resistant clothing.

9. Physical and Chemical Properties

Appearance	- Physical State	: Liquid
	- Color	: Clear
Odor		: slight odor
pH		: Not available
Boiling Point / Boiling Range		: 244℃
Flash Point		: 124℃
Upper / Lower Flammability or Explosive Limits		: LEL 1.6 vol.% UEL 10.8 vol. %
Vapor Pressure		: 0.0057mmHg(25℃) [Converted value 0.76Pa(25℃)] :HSDB(2003)
Vapor density		: 3.66; Verschueren (4th, 2001)
Specific Gravity		: 1.12(20℃):Verschueren (4th, 2001)
Solubility		: Soluble in ethyl alcohol, acetone, and ether. Insoluble in benzene and carbon tetrachloride

	Chapman Ver 16:1(2008)
Partition Coefficient (n-octanol / Water)	: LogPow=-1.47:SRC (access on June 2008)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available

10. Stability and Reactivity

Reactivity	: Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials"
Chemical Stability	: Stable at standard temperatures and pressure.
Possibility of Hazardous Reactions	: Hazardous polymerization will not occur.
Conditions to Avoid	: Avoid heat, flames.
Incompatible Materials	: Oxidizers
Hazardous Decomposition	: No data available

11. Toxicological Information

Acute Toxicity

Exposure route	Endpoint	Value	Species	Source
Oral	LD50	12565 mg/kg	Rat	NLM_CIP
Dermal	LD50	11890 mg/kg	Rabbit	NLM_CIP
Inhalation	LC50	>4600mg/m3 4h (aerosol)	Rat	NICNAS

Information on Likely Routes of Exposure

Skin corrosion/irritation	: Shall not be classified as corrosive/irritant to skin.
Serious eye damage/eye irritation	: Shall not be classified as seriously damaging to the eye or eye irritant.
Respiratory or skin sensitisation	: Shall not be classified as a respiratory or skin sensitization.
Germ Cell Mutagenicity	: Shall not be classified as a germ cell mutagenicity
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	: Shall not be classified as a specific target organ toxicant (single

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toxicity - single exposure	exposure).
Specific target organ toxicity - repeated exposure	: Causes damage to organs (liver, kidneys) through prolonged or repeated exposure.
Aspiration Hazard	: Shall not be classified as presenting 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.

Aquatic toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
LC50	75,200mg/L	fathead minnow (Pimephales promelas)	ECHA	96h
EC50	>10,000mg/L	daphnia magna		48 h

Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
EC50	>10,000mg/L	aquatic invertebrates	ECHA	24h

Persistence and Degradability	: Not available
Bioaccumulation	: Not available
Mobility	: Not available
Other Toxicity	: Not available

13. Disposal Considerations

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

Disposal Methods : Dispose in accordance with all applicable regulations.

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 DOT Information	: Not regulated as a hazardous material for transport.
TDG Information	: Not regulated as dangerous goods for transport.
IATA Information	: Not regulated as dangerous goods for transport.
ICAO Information	: Not regulated as dangerous goods for transport.
IMDG Information	: Not regulated as dangerous goods for transport.
International Bulk Chemical Code	: This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

15. Regulatory Information

U.S. Federal Regulations	: None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
SARA TitleⅢ Section 311/312	: Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No
U.S. State Regulations	: The following components appear on one or more of the following state hazardous substances lists

Component	CA	MA	MN	NJ	PA
Diethylene glycol (CAS No. 111-46-6)	No	No	Yes	No	Yes

: Not regulated under California Proposition 65

Canadian WHMIS Ingredient Disclosure	: None of the product component(s) are listed on the Ingredients Disclosure List (IDL).

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List (IDL)

Chemical Inventory : Component Analysis - Inventory

Listings

Component	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Diethylene glycol (CAS No. 111-46-6)	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

16. Other Information

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; CAS - Chemical Abstracts Service; CLP - Classification, Labelling and Packaging; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; IBC Code - International Bulk Chemical Code; Kow - Octanol/water partition coefficient; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NTP = National Toxicology Program; REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - European Rail Transport; STEL - Short-term Exposure Limit; TWA - Time Weighted Average; UEL - Upper Explosive Limit

Other Information

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