

# Safety Data Sheets

## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

PR-200 Maintenance Liquid

**Product Description**

ML013-Z-B2/ ML013-Z-K2

**Product Use**

Maintenance Liquid for ink jet printer

**Restrictions on Use**

None known.

**Manufacturer Information**

Mimaki Engineering Co., Ltd

2182-3 Shigeno-otsu, Tomi-shi, Nagano

389-0512 Japan

Telephone number: +81-268-64-2413

**Importer / Distributor Information**

MIMAKI AUSTRALIA PTY LTD.

Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia

Telephone number: + 61-2-8036-4500

**Emergency telephone number**

+61 2 8014 4558 (within Australia only)

18000 74234 (within Australia only)

+65-3158-1074

## Section 2 - HAZARDS IDENTIFICATION

Classified to Globally Harmonised System of Classification and Labelling of Chemicals, Third revised edition, published by the United Nations as modified under Schedule 6 of the Work Health and Safety Regulation.

**GHS Classification**

Acute Toxicity - Oral - Category 4

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 1 ( kidneys , liver )

**GHS Label Elements****Symbol(s)****Signal Word**

Danger

**Hazard Statement(s)**

Harmful if swallowed.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statement(s)****Prevention**

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.



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Wash thoroughly after handling.

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

Wear protective gloves/clothing and eye/face protection.

### Response

IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

### Storage

Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Potential Environmental Effects

None known.

### Other Hazards Which Do Not Result in Classification

None known.

### Main Symptoms and Emergency Overview

Causes skin irritation. Causes eye irritation. May cause allergic skin reaction. Suspected of damaging fertility or the unborn child. Causes damage to kidneys and liver through prolonged or repeated exposure.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
111-46-6	Diethylene glycol	90-100

## Section 4 - FIRST AID MEASURES

### Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

### Skin

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.

### Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

### Ingestion

If swallowed, get medical attention.

### Most Important Symptoms/Effects

#### Symptoms: Immediate

Harmful if swallowed

#### Symptoms: Delayed

reproductive effects, kidney damage, liver damage

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

## Section 5 - FIRE FIGHTING MEASURES

### Extinguishing Media

#### Suitable 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

Negligible fire hazard.

### Hazardous Combustion Products

oxides of carbon, acrolein, oxides of sulfur

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### Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

### 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. Stay away from the ends of tanks. Avoid inhalation of material or combustion by-products.

### Hazchem/Emergency Action Code

No data available

## Section 6 - ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

### Environmental Precautions

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.

## Section 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 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.

Further information on storage conditions: Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep container tightly closed. Keep cool. Keep separated from incompatible substances.

### Incompatible Materials

acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component Exposure Limits

Diethylene glycol	111-46-6
Safe Work Australia.	23 ppm TWA ; 100 mg/m <sup>3</sup> TWA

### EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face 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.

#### Respiratory Protection

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

#### Glove Recommendations

Wear appropriate chemical resistant gloves.

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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	clear	<b>Physical State</b>	liquid
<b>Odor</b>	slight odor	<b>Color</b>	clear
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	244°C
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	Not available	<b>Flash Point</b>	124°C
<b>Lower Explosive Limit</b>	1.6 vol. %	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	10.8 vol. %	<b>Vapor Pressure</b>	0.0057mmHg(25°C) [Converted value 0.76Pa(25°C)] :HSDB(2003)
<b>Vapor Density (air=1)</b>	3.66; Verschueren (4th, 2001)	<b>Specific Gravity (water=1)</b>	1.12 (20 °C)
<b>Water Solubility</b>	Not available	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Soluble in ethyl alcohol, acetone, and ether. Insoluble in benzene and carbon tetrachloride Chapman Ver 16:1(2008)
<b>Density</b>	Not available	<b>Physical Form</b>	liquid
<b>Molecular Weight</b>	Not available		

### Section 10 - STABILITY AND REACTIVITY

#### Reactivity

No reactivity hazard is expected.

#### Chemical Stability

Stable under normal conditions of use.

#### Possibility of Hazardous Reactions

Will not polymerize.

#### Conditions to Avoid

Avoid flames, sparks, and other sources of ignition. Avoid contact with incompatible materials.

#### Incompatible Materials

acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

#### Hazardous decomposition products

oxides of carbon, acrolein, oxides of sulfur

### Section 11 - TOXICOLOGICAL INFORMATION

#### Information on Likely Routes of Exposure

##### Inhalation

No information available for the product.

##### Skin Contact

No information available for the product.

##### Eye Contact

No information available for the product.

##### Ingestion

irritation, nausea, vomiting, stomach pain

#### Acute and Chronic Toxicity

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### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### Diethylene glycol (111-46-6)

Oral LD50 Rat 12565 mg/kg

Dermal LD50 Rabbit 11890 mg/kg

#### Immediate Effects

Harmful if swallowed

#### Delayed Effects

reproductive effects, kidney damage, liver damage

#### Irritation/Corrosivity Data

No information available for the product.

#### Respiratory Sensitization

No information available for the product.

#### Dermal Sensitization

No information available for the product.

#### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

#### Germ Cell Mutagenicity

No information available for the product.

#### Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

#### Specific Target Organ Toxicity - Single Exposure

No target organs identified.

#### Specific Target Organ Toxicity - Repeated Exposure

kidneys, liver

#### Aspiration hazard

Not expected to be an aspiration hazard.

#### Medical Conditions Aggravated by Exposure

No information available for the product.

## Section 12 - ECOLOGICAL INFORMATION

### Component Analysis - Aquatic Toxicity

Diethylene glycol	111-46-6
Fish:	LC50 96 h Pimephales promelas 75200 mg/L [flow-through ]
Invertebrate:	EC50 48 h Daphnia magna 84000 mg/L IUCLID

#### Persistence and Degradability

No information available for the product.

#### Bioaccumulative Potential

No information available for the product.

#### Mobility in soil

No information available for the product.

#### Other adverse effects

No additional information available.

## Section 13 - DISPOSAL CONSIDERATIONS

### Disposal Methods

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

## Section 14 - TRANSPORT INFORMATION

### ADG Information:

No Classification assigned.



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**IATA Information:**

No Classification assigned.

**ICAO Information:**

No Classification assigned.

**IMDG Information:**

No Classification assigned.

**Component Marine Pollutants (IMDG)**

Not regulated as dangerous goods.

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

**Transportation Special Precautions**

No information available.

**Hazchem/Emergency Action Code**

No data available

### Section 15 - REGULATORY INFORMATION

**Australia Regulations****Work Health and Safety Regulations - Prohibited Carcinogens**

No component(s) are listed on the Prohibited Carcinogens list.

**Work Health and Safety Regulations - Restricted Carcinogens**

No component(s) are listed on the Restricted Carcinogens list.

**Work Health and Safety Regulations - Restricted Hazardous Chemicals**

No component(s) are listed on the Restricted Hazardous Chemicals list:

**Australia Work Health and Safety Regulations - Hazardous Chemicals Requiring Health Monitoring**

None of this product's components are on the list.

**Component Analysis - Inventory****Diethylene glycol (111-46-6)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

### Section 16 - OTHER INFORMATION

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL - Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National



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Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

### **Other Information**

#### **Disclaimer:**

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.