SECTION 1: Identification

Product identifier
Material Name
Maintenance Liquid 07
Product Description
ML007-Z-22 / ML007-Z-BA / ML007-Z-BB / ML007-Z-K1
Product Use
Cleaning solution for ink jet printer.
Restrictions on Use
None known.
Details of the supplier of the safety data sheet
Mimaki Engineering Co., Ltd
2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 Japan
Phone: +81-268-64-2413
Importer / Distributor Information
MIMAKI SINGAPORE PTE. LTD.
31 Kaki Bukit Road 3 Singapore 417818 Tech Link #02-03
Phone: +65-6508-2789
Emergency telephone number
+65 3165 2217 (within Singapore only)
+65 3158 1074

SECTION 2: Hazards identification

Serious Eye Damage/Eye Irritation - Category 2
Label elements
Hazard symbols

Signal word
Warning
Hazard statements
H319 Causes serious eye irritation.
Precautionary statements
Prevention
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
Response
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
Storage
None needed according to classification criteria.
Disposal
SECTION 3: Composition / information on ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-15-2</td>
<td>Diethylene glycol monoethyl ether acetate</td>
<td>90-100</td>
</tr>
</tbody>
</table>

Impurities and stabilizing additives contributing to the GHS Classification
None

SECTION 4: First aid measures

Inhalation
Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion
If swallowed, get medical attention.

Most Important Symptoms/Effects
Acute
eye irritation
Delayed
No information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically and supportively.

SECTION 5: Firefighting measures

Suitable extinguishing media
regular dry chemical, carbon dioxide, 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. Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

Hazardous combustion products
oxides of carbon

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Keep unnecessary people away, isolate hazard area and deny entry. 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.
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
Avoid heat, flames, sparks and other sources of ignition. 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
Avoid contact with eyes, skin and clothing. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities
None needed according to classification criteria.
Further information on storage conditions: Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

Incompatible Materials
acids

SECTION 8: Exposure controls/personal protection

Exposure Guidelines
Component Exposure Limits
Singapore and ACGIH have not developed exposure limits for any of this product's components.

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

Engineering controls
Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
Eye/face protection
Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing
Wear appropriate chemical resistant clothing.

Glove Recommendations
Wear appropriate chemical resistant gloves.

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

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>solvent odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>clear</td>
</tr>
<tr>
<td>pH</td>
<td>(neutral)</td>
</tr>
</tbody>
</table>
### Melting Point
- **Melting Point**: < -25 °C

### Boiling Point
- **Boiling Point**: Not available

### Boiling Point Range
- **Boiling Point Range**: 217 °C
- **Freezing point**: Not available

### Evaporation Rate
- **Evaporation Rate**: Not available
- **Flammability (solid, gas)**: Not available

### Autoignition Temperature
- **Autoignition Temperature**: > 360 °C
- **Flash Point**: Not available

### Lower Explosive Limit
- **Lower Explosive Limit**: 0.9 %
- **Decomposition temperature**: Not available

### Upper Explosive Limit
- **Upper Explosive Limit**: 8.5 %
- **Vapor Pressure**: 13 Pa (20 °C)

### Vapor Density (air=1)
- **Vapor Density (air=1)**: 6.1
- **Specific Gravity (water=1)**: Not available

### Water Solubility
- **Water Solubility**: (Completely soluble )
- **Partition coefficient: n-octanol/water**: Not available

### Viscosity
- **Viscosity**: Not available
- **Solubility (Other)**: soluble in organic solvent

### Density
- **Density**: 1.01 g/cm³ (20 °C)
- **Molecular Weight**: Not available

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### SECTION 10: Stability and reactivity

**Reactivity**
- No reactivity hazard is expected.

**Chemical stability**
- Stable at normal temperatures and pressure.

**Possibility of hazardous reactions**
- Will not polymerize.

**Conditions to avoid**
- Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep separated from incompatible substances.

**Materials to Avoid (Incompatibilities)**
- acids

**Hazardous decomposition products**
- oxides of carbon

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### SECTION 11: Toxicological information

**Information on Likely Routes of Exposure**

**Inhalation:**
- central nervous system effects

**Skin contact**
- irritation

**Eye contact**
- irritation

**Ingestion**
- No information on significant adverse effects.

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and the following selected endpoints are published:
Diethylene glycol monoethyl ether acetate (112-15-2)
Oral LD50  Rat  11 g/kg

**Acute Toxicity Estimate**

<table>
<thead>
<tr>
<th>Route</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

**Immediate Effects**

- eye irritation

**Delayed Effects**

- No information on significant adverse effects.

**Irritation/Corrosivity Data**

- No information available for the product.

**Severe Damage/Irritation of Eyes**

- irritant

**Respiratory Sensitization**

- No information available for the product.

**Dermal Sensitization**

- No information available for the product.

**Carcinogenicity**

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

**Mutagenic Data**

- No information available for the product.

**Reproductive Effects Data**

- No information available for the product.

**Tumorigenic Data**

- No information available for the product.

**Specific Target Organ Toxicity - Single Exposure**

- No target organs identified.

**Specific Target Organ Toxicity - Repeated Exposure**

- No target organs identified.

**Aspiration hazard**

- Not expected to be an aspiration hazard.

**Medical Conditions Aggravated by Exposure**

- No data available.

**SECTION 12: Ecological information**

**Component Analysis - Aquatic Toxicity**

- No LOLI ecotoxicity data are available for this product's components

**Persistence**

- No information available for the product.

**Bioaccumulative potential**

- No information available for the product.

**Mobility**

- No information available for the product.

**Other adverse effects**

- No additional information is available.

**SECTION 13: Disposal considerations**
Disposal Methods
Dispose in accordance with all applicable regulations.

Component waste information
There is no applicable waste information for this product's components.

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

SECTION 14: Transport information

IATA Information:
No Classification assigned.

ICAO Information:
No Classification assigned.

IMDG Information:
No Classification assigned.

Component Marine Pollutants (IMDG)
Not regulated as dangerous goods.

International Bulk Chemical Code
This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>IBC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monoethyl ether acetate</td>
<td>112-15-2</td>
</tr>
<tr>
<td></td>
<td>Category Y (related to Poly(2-8)alkylene glycol monoalkyl (C1-6) ether acetate)</td>
</tr>
</tbody>
</table>

Special precautions
No additional information is available.

SECTION 15: Regulatory information

Singapore Regulations
List of Hazardous Substances
No information was found for the substance(s) on the List of Hazardous Substances.

Poisons List
No information was found for the substance(s) on the List of Hazardous Substances.

Hazardous Substance Transport Quantities
None of this product's components are on the list.

Maritime and Port Authority
This product contains no components identified on Singapore's Maritime and Port Authority - Dangerous Goods.

Arms and Explosives Act
None of this product's components are on the list.

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

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

Petroleum and Flammable Materials
This product contains no components identified on Singapore's Petroleum and Flammable Materials.

Strategic Goods Control
This product contains no components identified on Singapore's Strategic Goods Control.
Safety Data Sheets

Toxic Industrial Wastes
This product contains no components identified on Singapore's Toxic Industrial Wastes.

Component Analysis - Inventory
Diethylene glycol monoethyl ether acetate (112-15-2)

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<tr>
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<tr>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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); ENCS - European Inventory of Existing Commercial Chemical Substances; 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; LOEL - 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 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.