

Safety Data Sheets

1. Identification

Product Name	: Maintenance Liquid 11
Order No.	: ML011-Z-K2 / ML011-Z-B2
General Use	: Cleaning solution for ink jet printer
Product Description	: Washing liquid for UV curable ink
SDS Number	: 037-C231439
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 NE , 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, Toll free) +1 215 207 0061

2. Hazards Identification

[HCS Classification]

Physical Hazards

Flammable Liquid : Not classified

Health Hazards

Acute Toxicity – Oral : Not classified

Acute Toxicity – Dermal : Not classified

Skin Corrosion / Irritation : Not classified

Eye Damage / Irritation : Not classified

Toxic to Reproduction : Not classified

Specific Target Organ Toxicity
(Repeated Exposure) : Not classified

Environmental Hazards

Hazardous to the Aquatic : Category 3

Environment - Acute Hazard

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Hazardous to the Aquatic : Not classified

Environment - Long Term Hazard

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

[HCS Label Elements]

Symbol

None

Signal Word

None

Hazard Statements

H402 Harmful to aquatic life

Precautionary Statements

[Prevention]

P273 Avoid release to the environment.

[Disposal]

P501 Dispose of contents and container in accordance with local, regional, national and international regulation.

3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Higher Alcohols	35-45	Trade Secret
2	3,6,9,12-Tetraoxahexadecanol	35-45	1559-34-8
3	2,2,4-Trimethyl-1,3,-pentanediol diisobutyrate	15-35	6846-50-0

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 : Not Available

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Delayed : No information on significant adverse effects.
Indication of Immediate : Treat symptomatically and supportively.
Medical Attention and
Special Treatment
Needed, If Needed

5. Fire Fighting Measures

Flammable Properties : Flash point 140°C
Auto-Ignition Temperature: Not available
Extinguishing Media : carbon dioxide, regular dry chemical, water spray
Unsuitable Extinguishing Media : Do not use straight streams.
Special Hazards Arising from the Chemical : Slight fire hazard.
Hazardous Combustion Products : oxides of carbon
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.

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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 : Avoid contact with eyes, skin and clothing. Wear protective eye/face protection. Avoid release to the environment.
 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 away from incompatible materials.

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 Engineering Controls : Provide local exhaust or process enclosure ventilation system. Ensure 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.

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**Gloves**

Eye Protection : Wear splash resistant safety glasses.

**Safety Glasses**

Skin Protection : Wear appropriate chemical resistant clothing.

**Protective Apron**

9. Physical and Chemical Properties

Appearance	- Physical State	: Liquid
	- Color	: Clear
Odor		: Practically odorless
pH		: Not available
Boiling Point / Boiling Range		: 280-360°C
Melting Point / Melting Range		: -5-0°C
Decomposition Temperature		: Not available
Flash Point		: 140°C (infer)
Flammability (Solid, Gas)		: Not applicable
Upper / Lower Flammability or Explosive Limits		: Not available
Vapor Pressure		: under 1.3Pa(20 °C)
Explosive Properties		: Not available
Oxidizing Properties		: Not available
Specific Gravity		: 0.92 (Water = 1)
Solubility		: Soluble in methanol, acetone
Water Solubility		: Almost insoluble in water.
Partition Coefficient (n-octanol / Water)		: Not available
Viscosity		: Not available
Vapor Density		: 9.85
Evaporation Rate		: Not available
VOC		: 100%

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10. Stability and Reactivity

Reactivity	: No reactivity hazard is expected.
Chemical Stability	: Stable at standard temperatures and pressure.
Conditions to Avoid	: Stable under normal handling and storage conditions.
Incompatible Materials	: Strong oxidizing agents
Hazardous	: Combustion: oxides of carbon
Decomposition	

11. Toxicological Information

Acute Toxicity	: The component(s) of this material have been reviewed in various
Component Analysis -	sources and no selected endpoints have been identified.
LD50/LC50	
Information on Likely Routes of Exposure	
Inhalation	: Not available
Ingestion	: Not available
Skin Contact	: Not available
Eye Contact	: Not available
Immediate Effects	: Not available
Delayed Effects	: No information on significant adverse effects.
Medical Conditions	: No information available for the product.
Aggravated by Exposure	
Irritation/Corrosivity	: Not available
Data	
Respiratory	: Not available
Sensitization	
Dermal Sensitization	: Not available
Germ Cell Mutagenicity	: Not available
Carcinogenicity	: No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for the component(s) of this product.
Reproductive Toxicity	: Not available
Specific Target Organ	: No target organs identified.
Toxicity - Single	
Exposure	

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Specific Target Organ : No target organs identified.
 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.

Ecotoxicity : Harmful to aquatic life
 Component Analysis - : 2,2,4-Trimethyl-1,3,-pentanediol diisobutyrate

Aquatic Toxicity

Fish	: LC50 18mg/L(96h) (killifish)
Crustacea	: EC50 300mg/L(24h) (ceriodaphnia dubia)
algae	: EC50 8.0mg/L(72h)

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

13. Disposal Considerations

: 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 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.

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14. Transport Information

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

UN Number : Not regulated
 Class : Not regulated
 Packing Group (PG) : Not regulated
 Proper Shipping Name : Not regulated

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.

U.S. State Regulations : None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

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

Chemical Inventory Listings

Component	US	CA	EU	AU	JP	KR	CN
Product	Yes	DSL	EIN	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 -



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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

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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