Safety Data Sheets

SECTION 1: Identification

Product identifier
Material Name
Maintenance Liquid 15
Product Description
ML015-Z-44 / ML015-Z-B1 / ML015-Z-K1 / ML015-Z-K2
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

Singapore Standard SS 586-2:2014
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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards Which Do Not Result in Classification

None known.

SECTION 3: Composition / information on ingredients

CAS	Component Name	Percent
112-15-2	Diethylene glycol monoethyl ether acetate	90-100

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

Appearance	Clear liquid	Physical State	liquid
Odor	solvent odor	Color	clear
Odor Threshold	Not available	pH	(neutral)

Melting Point	<-25 ℃	Boiling Point	Not available
Boiling Point Range	217 ℃	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	>360 ℃	Flash Point	116 °C
Lower Explosive Limit	0.9 %	Decomposition temperature	Not available
Upper Explosive Limit	8.5 %	Vapor Pressure	13 Pa (20 °C)
Vapor Density (air=1)	6.1	Specific Gravity (water=1)	Not available
Water Solubility	(Completely soluble)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	soluble in organic solvent
Density	1.01 g/cm3 (20 °C)	Molecular Weight	Not available

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

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

Oral	> 2000 mg/kg

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
Component 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.

Diethylene glycol monoethyl ether acetate	112-15-2
IBC Code:	Category Y (related to Poly(2-8)alkylene glycol monoalkyl (C1-6) ether acetate)

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.

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)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	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 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.