

Safety Data Sheets

1. Identification

Product Name	: Latex ink LX101 Orange
Order No.	: LX101-Or-60
Ink Ver.	: 1
General Use	: Ink for ink jet printer
Product Description	: Aqueous ink
SDS Number	: 037-W350537
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.	: +1-678-730-0100
Emergency Telephone No.	: +81-268-64-2281

2. Hazards Identification

[GHS Classification]

Physical Hazards

non-classifiable or not-applicable.

Health Hazards

Eye Damage / Irritation	: Category 2
Toxic to Reproduction	: Category 2
Specific Target Organ Toxicity (Single Exposure)	: Category 2(kidneys)
Specific Target Organ Toxicity (Repeated Exposure)	: Category 1 (liver and kidneys)

Environmental Hazards

non-classifiable or not-applicable.

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

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[GHS Label Elements]

Symbol



Signal Word

Danger

Hazard Statements

H319 Cause serious eye irritation

H361 Suspected of damaging fertility or the unborn child

H371 May cause damage to kidneys.

H372 Causes damage to liver and kidneys through prolonged or repeated exposure.

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/clothing and eye/face protection.

[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.

P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.

P314 Get medical advice/attention if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

[Storage]

P405 Store locked up.

[Disposal]

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

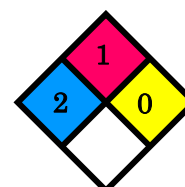
NFPA Rating (scale 0 – 4)

Health = 2

Flammability = 1

Instability = 0

Special = None



CANADIAN WHMIS SYMBOLS



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3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Diethylene glycol derivative	10-20	Trade Secret
2	Alcohol derivative	23-27	Trade Secret
3	Diethylene glycol	3-5	111-46-6
4	Pigment(Orange)	1-5	Trade Secret
5	Resin	1-5	Trade Secret
6	Methyldiethanolamine	0.1-1.5	105-59-9
7	Water	balance	7732-18-5

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 : eye irritation, kidney damage

Delayed : reproductive effects, liver damage, kidney damage

Indication of Immediate : Treat symptomatically and supportively.

Medical Attention and

Special Treatment

Needed, If Needed

5. Fire Fighting Measures

Flammable Properties : Flash point Not flammable

Extinguishing Media : carbon dioxide, regular dry chemical, water spray, alcohol resistant foam

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Unsuitable Extinguishing Media : Do not scatter spilled material with high-pressure water streams.

Media

Special Hazards Arising from the Chemical : Negligible fire hazard.

from the Chemical

Hazardous Combustion Products : oxides of carbon, oxides of nitrogen

Products

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.

Special Protective Equipment and Precautions for Firefighters : Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Firefighters

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.

and Emergency

Procedures

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.

Cleaning Up

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.

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7. Handling and Storage

Precautions for Safe Handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wear protective gloves and eye/face protection. Wash thoroughly after handling.
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 container tightly closed. Keep cool. Store locked up. Keep separated from incompatible substances..

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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Eye Protection : Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.



Safety Glasses

Skin Protection : Wear appropriate chemical resistant clothing.



Protective Apron

9. Physical and Chemical Properties

Appearance	- Physical State	: Liquid
	- Color	: Orange
Odor		: slight solvent odor
pH		: 9.8 ± 0.5
Boiling Point / Boiling Range		: Not available
Melting Point / Melting Range		: Not available
Decomposition Temperature		: Not available
Flash Point		: Not flammable
Flammability (Solid, Gas)		: Not applicable
Explosive Properties		: Not available
Oxidizing Properties		: Not available
Specific Gravity		: 1.03 ± 0.01 (20 °C)
Solubility		: Not available
Water Solubility		: soluble
Partition Coefficient (n-octanol / Water)		: Not available
Viscosity		: Not available
Vapor Density		: Not available
Evaporation Rate		: Not available
VOC		: Not available

10. Stability and Reactivity

Reactivity	: No reactivity hazard is expected.
Chemical Stability	: Stable under normal conditions of use.

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Possibility of Hazardous	: Will not polymerize.
Reactions	
Conditions to Avoid	: Avoid flames, sparks, and other sources of ignition. Avoid contact with incompatible materials.
Incompatible Materials	: oxidizing materials
Hazardous	: Combustion: oxides of carbon, oxides of nitrogen
Decomposition	

11. Toxicological Information

Acute Toxicity	: The component(s) of this material have been reviewed in various sources and the following selected endpoints are published:
Component Analysis - LD50/LC50	Diethylene glycol (111-46-6) Dermal LD50 Rabbit 11890 mg/kg; Oral LD50 Rat 12565 mg/kg
Information on Likely Routes of Exposure	
Inhalation	: irritation, difficulty breathing, headache, reproductive effects, kidney damage, liver damage
Ingestion	: no information on significant adverse effects
Skin Contact	: irritation
Eye Contact	: irritation
Immediate Effects	: eye irritation, kidney damage
Delayed Effects	: reproductive effects, liver damage, kidney damage
Medical Conditions	: No information available for the product.
Aggravated by Exposure	
Irritation/Corrosivity	: eye irritation
Data	
Respiratory	: No information available for the product.
Sensitization	
Dermal Sensitization	: No information available for the product.
Germ Cell Mutagenicity	: No information available for the product.
Carcinogenicity	: No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for the component(s) of this product.
Reproductive Toxicity	: Available data characterizes components of this product as reproductive hazards.
Specific Target Organ Toxicity - Single	: kidneys

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Exposure
 Specific Target Organ : liver, kidneys
 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 - : Diethylene glycol (111-46-6)

Aquatic Toxicity

Fish:	96 Hr LC50 Pimephales promelas: 75200 mg/L [flow-through]
Invertebrate:	48 Hr EC50 Daphnia magna: 84000 mg/L

Methyldiethanolamine (105-59-9)

Fish:	96 Hr LC50 Pimephales promelas: >1000 mg/L
Algae:	72 Hr EC50 Desmodesmus subspicatus: 37 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 20 mg/L
Invertebrate:	48 Hr EC50 Daphnia magna: 230 mg/L

Persistence and : Not available

Degradability

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.

Component Waste Numbers : The U.S. EPA has not published waste numbers for this product's components.

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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.

Marine Pollutant : No component(s) of this material is specifically listed in the IMDG Code as an identified marine pollutant.

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 Title III 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	CAS No.	CA	MA	MN	NJ	PA
Diethylene glycol	111-46-6	No	No	Yes	No	Yes

Not regulated under California Proposition 65

Canada : WHMIS CLASSIFICATION: D2A, D2B.

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

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Chemical Inventory : Component Analysis - Inventory

Listings

Component	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Diethylene glycol (111-46-6)	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Methyldiethanolamine (105-59-9)	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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