

**\*\*\*Section 1 - IDENTIFICATION\*\*\*****Product Identifier: LH-100C****Product Description**

LH100-C-BA / LH100-C-B2 / SPC-0597C / SPC-0659C

**Product Use**

UV cure ink 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 SINGAPORE PTE. LTD.  
31 Kaki Bukit Road 3 Singapore 417818 TechLink #02-03

Telephone number: +65-6508-2789

**Emergency telephone number**+65 3165 2217 (within Singapore only)  
+65 3158 1074**\*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*****SPRING/SS 586-2:2014**Acute Toxicity (Oral), Category 4 (~50% unknown)  
Skin Corrosion / Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 1  
Skin sensitizer, Category 1  
Toxic to reproduction, Category 2  
Specific Target Organ Toxicity - Repeated Exposure, Category 2 (immune system)  
Hazardous to the aquatic environment - acute hazard, Category 1  
Hazardous to the aquatic environment - chronic hazard, Category 1**LABEL ELEMENTS****Symbol(s)****Signal Word**

DANGER

**Hazard Statement(s)****H302** Harmful if swallowed.**H315** Causes skin irritation.

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**H318** Causes serious eye damage.

**H317** May cause an allergic skin reaction.

**H361** Suspected of damaging fertility or the unborn child.

**H373** May cause damage to immune system through prolonged or repeated exposure.

**H410** Very toxic to aquatic life with long lasting effects.

### Precautionary Statement(s)

#### Prevention

**P201** Obtain special instructions before use.

**P202** Do not handle until all safety precautions have been read and understood.

**P260** Do not breathe dust/fume/gas/mist/vapours/spray.

**P270** Do not eat, drink or smoke when using this product.

**P280** Wear protective gloves/protective clothing/eye protection/face protection.

**P264** Wash thoroughly after handling.

**P272** Contaminated work clothing should not be allowed out of the workplace.

**P273** Avoid release to the environment.

#### Response

**P308+P313** IF exposed or concerned: Get medical advice/attention.

**P302+P352** IF ON SKIN: Wash with plenty of water.

**P333+P313** If skin irritation or rash occurs: Get medical advice/attention.

**P362** Take off contaminated clothing and wash before reuse.

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**P310** Immediately call a POISON CENTER or doctor/physician.

**P301+P312** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

**P330** Rinse mouth.

**P391** Collect spillage.

#### Storage

**P405** Store locked up.

#### 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	Percent
Proprietary	Acryl acid ester	40-60
13048-33-4	1,6-Hexanediol diacrylate	29.22
Proprietary	Initiator	10-15
Proprietary	Additive	0.1-5
Proprietary	Phthalocyanine series pigment	1.8

### \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

#### Inhalation

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

#### Skin

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Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs: Get medical advice/attention. Contaminated clothing should be removed and laundered before reuse.

### Eyes

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.

### Ingestion

If swallowed, get medical attention.

### Note to Physicians

Treat symptomatically and supportively.

### Symptoms: Immediate

allergic skin reaction, skin irritation, eye damage

### Symptoms: Delayed

allergic skin reaction, reproductive effects, immune system disorders

## \*\*\*Section 5 - FIRE FIGHTING MEASURES\*\*\*

### Flammable Properties

Negligible fire hazard.

### 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.

### 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.

### Hazardous Combustion Products

**Combustion:** oxides of carbon, oxides of nitrogen, oxides of sulfur

## \*\*\*Section 6 - ACCIDENTAL RELEASE MEASURES\*\*\*

### Personal Precautions

Wear personal protective clothing and equipment, see Section 8.

### Environmental Precautions

Avoid release to the environment. Collect spillage.

### Methods for Containment

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray.

### Cleanup Methods

**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 special instructions before use. Do not handle until all safety precautions have been read and understood.

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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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

## Conditions for Safe Storage

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.

**Incompatibilities:** acids, bases, oxidizing materials, peroxides, metal oxides

## \* \* \*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\* \* \*

### Component Exposure Limits

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

### Biological exposure limits

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.

## PERSONAL PROTECTIVE EQUIPMENT

### Eyes/Face

Wear splash resistant safety goggles with a faceshield. 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\* \* \*

<b>Physical State:</b>	Liquid	<b>Appearance:</b>	cyan liquid
<b>Color:</b>	cyan	<b>Physical Form:</b>	liquid
<b>Odor:</b>	unique odor	<b>Odor Threshold:</b>	Not available
<b>pH:</b>	Not available	<b>Melting Point:</b>	Not available
<b>Boiling Point:</b>	Not available	<b>Flash Point:</b>	130 °C
<b>Decomposition Temperature:</b>	Not available	<b>Evaporation Rate:</b>	Not available
<b>LEL:</b>	Not available	<b>UEL:</b>	Not available
<b>Vapor Pressure:</b>	Not available	<b>Vapor Density (air = 1):</b>	Not available
<b>Density:</b>	Not available	<b>Specific Gravity (water = 1):</b>	1.10 (25 °C)
<b>Water Solubility:</b>	Not available	<b>Log KOW:</b>	Not available
<b>Coeff. Water/Oil Dist:</b>	Not available	<b>Auto Ignition Temperature:</b>	Not available
<b>Viscosity:</b>	22±3 mPa/s (25°C)	<b>Volatility:</b>	Not available
<b>Oxidizing Properties:</b>	Not available	<b>Explosive Properties:</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable		

## Other Property Information

No additional information is 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. Containers may rupture or explode if exposed to heat. Avoid contact with incompatible materials.

### Materials to Avoid (Incompatibilities)

acids, bases, oxidizing materials, peroxides, metal oxides

### Hazardous Decomposition:

**Combustion:** oxides of carbon, oxides of nitrogen, oxides of sulfur

## \* \* \*Section 11 - TOXICOLOGICAL INFORMATION\* \* \*

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The component(s) of this material have been reviewed in various sources and the following selected endpoints are published:

#### **1,6-Hexanediol diacrylate (13048-33-4)**

Oral LD50 Rat 5 g/kg

### Immediate Effects

allergic skin reaction, skin irritation, eye damage

### Delayed Effects

allergic skin reaction, reproductive effects, immune system disorders

### Irritation/Corrosivity Data

skin irritation, eye damage

### Respiratory Sensitizer

No information available for the product.

### Dermal Sensitizer

Available data characterizes components of this product as dermal sensitization hazards.

### Carcinogenicity

#### Component Carcinogenicity

No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for the component(s) of this product.

### Mutagenic Data

No information available for the product.

### Reproductive Effects Data

Available data characterizes components of this product as reproductive hazards.

### Specific Target Organ Toxicity - Single Exposure

No target organs identified.

### Specific Target Organ Toxicity - Repeated Exposure

Immune system

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### Aspiration Hazard

Not expected to be an aspiration hazard.

### Medical Conditions Aggravated by Exposure

No information available for the product.

## \* \* \*Section 12 - ECOLOGICAL INFORMATION\* \* \*

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for the component(s) of this product.

### Bioaccumulation

No information available for the product.

### Bioconcentration

No information available for the product.

### Biodegradation

No information available for the product.

### Persistence

No information available for the product.

### Mobility

No information available for the product.

### Other Information

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.

## \* \* \*Section 14 - TRANSPORT INFORMATION\* \* \*

### IATA Information

**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Contains: 1,6-Hexanediol diacrylate, Acryl acid ester)

**UN #:** UN3082 **Hazard Class:** 9 **Packing Group:** III

**Required Label(s):** 9

Special Provision : A197 \*1

### ICAO Information

**Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Contains: 1,6-Hexanediol diacrylate, Acryl acid ester)

**UN #:** UN3082 **Hazard Class:** 9 **Packing Group:** III

**Required Label(s):** 9

### IMDG Information

**Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Contains: 1,6-Hexanediol diacrylate, Acryl acid ester)

**UN #:** UN3082 **Hazard Class:** 9 **Packing Group:** III

# Safety Data Sheets

Required Label(s): 9

Special Provision : 2.10.2.7 \*1

## Marine Pollutant

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

\*1 Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) is excepted from Dangerous Goods regulations  
 -- see UN Special Provision.

## \* \* \*Section 15 - REGULATORY INFORMATION\* \* \*

### Singapore Regulations

#### Component Analysis

No information was found for the substance(s) in Singapore regulations.

#### Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
1,6-Hexanediol diacrylate	13048-33-4	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Phthalocyanine series pigment	Proprietary	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

## \* \* \*Section 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; LC50 - Lethal Concentration, 50%; LD50 - Lethal Dose, 50%; 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

### 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.

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