

Safety Data Sheet

1. IDENTIFICATION

Product Identifier	: ELH-100 White
Product code	: ELH100-W-BA-2 / ELH100-W-B2-2 / ELH100-W-60-2 / ELH100-W-22-2
Ink Version	: 2
Recommended use and restriction use	: INK JET ink
Supplier name	: MIMAKI ENGINEERING CO., LTD.
Address	: 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN
Telephone number	: +81-268-64-2413
Importer / Distributor name	: MIMAKI SINGAPORE PTE. LTD.
Address	: 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

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Health hazards	: Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2 Sensitization – skin Category 1
Environmental Hazards	: Hazard to the aquatic environment (long-term hazard) Category 2

GHS LABEL ELEMENTS

Pictograms	: 
Signal Word	: Warning
Hazard Statements	: H315 Causes skin irritation H317 May cause an allergic skin reaction H319 Causes serious eye irritation H411 Toxic to aquatic life with long lasting effects
Precautionary Statements	
Prevention	: Avoid breathing mist, vapours and spray.(P261) Wash thoroughly after handling.(P264) Contaminated work clothing should not be allowed out of the workplace.(P272) Avoid release to the environment(P273) Wear protective gloves/protective clothing/eye protection/face protection(P280)
Response	: IF ON SKIN: Wash with plenty of soap and water(P302+P352) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

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rinsing(P305+P351+P338)

If skin irritation or rash occurs: Get medical

advice/attention(P333+P313)

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

Take off contaminated clothing and wash it before

reuse.(P362+P364)

Collect spillage(P391)

Storage : Not applicable.

Disposal : Dispose of waste in accordance with local,state and federal regulations.(P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances or mixtures : Mixtures

Chemical name	Contents	CAS RN
1,6-Hexanediol diacrylate	30-40%	13048-33-4
Ethyl Phenyl(2,4,6-trimethylbenzoyl)phosphinate	5-15%	84434-11-7
Titanium dioxide	5-15%	13463-67-7
Acrylate monomer	5-15%	Confidential
Benzyl Acrylate	5-15%	2495-35-4
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester	5-15%	86273-46-3
2,2-Bis(4-hydroxyphenyl)propane-epichlorohydrin copolymer acrylate	1-10%	55818-57-0
Photo initiator	1-10%	Confidential
Additive	0.1-5%	Confidential
4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl	<1%	2226-96-2

4. FIRST-AID MEASURES

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Take of contaminated clothing and wash before re-use. Get medical attention if symptoms occur.

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. IF exposed or concerned: Get medical advice and attention.

Ingestion : Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. IF exposed or concerned: Get medical advice and attention.

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5. FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media	: Dry chemicals, CO2, water spray or regular foam.
Not suitable extinguishing media	: Cylindric water.
Specific hazards arising from the chemical	: Risk of producing harmful gases such as carbon monoxide. Avoid inhalation of smoke or gases.
Special protective actions for fire fighters	: Use goggles in combination with dust mask, and another protections as appropriate to situation.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Put on appropriate personal protective equipment. Large spills :Evacuate area. Ensure adequate ventilation.
Environmental precautions	: Collect spillage. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Methods and materials for containment and cleaning up	: Small spill : absorb with material such as non-combustible materialwash thoroughly after handling. Large spills: Dike spills and dispose of in safe area.
Prevention Measures for Secondary Accidents	: Keep away from sources of ignition and prepare extinguishing media. Risk of slipping. Spilled material forms slippery floor. Do not recklessly walk on the spillage.

7. HANDLING AND STORAGE

Handling	
Technical measures	: Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Safe handling advice	: Do not handle until all safety precautions have been read and understood. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapours/spray. Obtain special instructions before use.
Storage	
Suitable storage conditions	: Store in well-ventilated place. Store locked up.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

	ACGIH (TLV)	OSHA (PEL)	Workplace Safety And
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			Health (General Provisions) Regulations
Titanium dioxide	TWA 10 mg/m ³ , STEL –	15 mg/m ³ TWA (total dust)	10 mg/m ³ PEL

Engineering measures	:	Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use explosion-proof electrical equipment and prevent from static electricity.
Individual protection measures	:	
Respiratory protection	:	If necessary, wear respiratory protection.
Hand protection	:	Wear protective gloves.
Eye protection	:	Wear eye protection/face protection.
Skin and body protection	:	Wear protective clothing.
Hygiene measures	:	Wash hand thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	
Physical State	:	Liquid
Color	:	White
Odor	:	Unique odor
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Boiling point	:	No data available
Flash point	:	143°C
Evaporation rate	:	No data available
Flammability(Solid, Gas)	:	Combustible
Flammability or explosive limits	:	No data available
Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	1.0–1.3
Solubility(ies)	:	Non-water-soluble
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	22 ± 3 mPa·s (25°C)

10. STABILITY AND REACTIVITY

Reactivity	:	Stable under normal conditions of use.
Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reactions	:	Polymerization and curing may occur when exposed to light,

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Conditions to avoid	: particularly ultraviolet rays.
Incompatible materials	: Heat source, storage near fire source, direct sunlight, ultraviolet rays.
Hazardous decomposition products	: Strong oxidizing agents, radical initiator, inert gas, oxygen scavenger.
	: Combustion may produce toxic gas, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (Oral)	: Unable to classify due to insufficient data.
Acute toxicity (Dermal)	: Unable to classify due to insufficient data.
Acute toxicity (Inhalation : Gases)	: Does not fall under gas based on GHS definitions.
Acute toxicity (Inhalation : Vapours)	: Unable to classify due to insufficient data.
Acute toxicity (Inhalation : dust/mist)	: Unable to classify due to insufficient data.
Skin corrosion/ Irritation	: Category 2.
Serious eye damage/ irritation	: Category 2.
Respiratory Sensitization	: Unable to classify due to insufficient data.
Skin Sensitization	: Category 1
Germ cell mutagenicity	: Unable to classify due to insufficient data.
Carcinogenicity	: Unable to classify due to insufficient data.
Reproductive toxicity	: Unable to classify due to insufficient data.
Reproductive toxicity, effects on or via lactation	: Unable to classify due to insufficient data.
Specific target organ toxicity – Single Exposure	: Unable to classify due to insufficient data.
Specific target organ toxicity – Repeated Exposure	: Unable to classify due to insufficient data.
Aspiration hazard	: Unable to classify due to insufficient data.

12. ECOLOGICAL INFORMATION

Hazardous to the Aquatic Environment – Acute Toxicity	: Unable to classify due to insufficient data.
Hazardous to the Aquatic Environment – Chronic Toxicity	: Category 2.
Hazardous to the Ozone layer	: Unable to classify due to insufficient data.

13. DISPOSAL CONSIDERATIONS

Residual Waste	: Disposal should be in accordance with applicable regional, national and local laws and regulations. Passed to a licensed waste contractor.
Contaminated Container and Packaging	: Disposal should be in accordance with applicable regional, national and local laws and regulations. Passed to a licensed waste

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contractor. In case of disposal of empty containers, remove the content thoroughly.

14. TRANSPORT INFORMATION

International regulations

Sea(IMDG)

UN number : 3082
UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es) : 9
Packing group : III

Air(IATA)

UN number : 3082
UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es) : 9
Packing group : III

15. REGULATORY INFORMATION

Workplace Safety And Health : Occupational Exposure Limits

16. OTHER INFORMATION

Literature References : SDS of raw material
National Institute of Technology and Evaluation (NITE) GHS
Classifications List
Regulation (EC) 1272/2008 Annex VI
Regulation (EC) 1907/2006 registered substances

Other data : The information suggested in this Safety Data Sheet does not comprehend everything and should be adopted only as a guide. The accuracy of the information and recommendations suggested herein are credible. However the company makes no warranty regarding such information and recommendations and disclaims all liability for reliance thereon.