


Safety Data Sheet

Section 1 – Identification

Product identifier	: ELH-100 White
Product code	: ELH100-W-BA / ELH100-W-B2 / ELH100-W-60 / ELH100-W-22
Recommended use of the chemical and restrictions on use	: INK JET ink
Details of manufacturer	: MIMAKI ENGINEERING CO., LTD. : 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN : +81-268-64-2413
Details of Importer / Distributor	: MIMAKI AUSTRALIA PTY LTD. : Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia : + 61-2-8036-4500
Emergency telephone number	: +61 2 8014 4558 (within Australia only) 18000 74234 (within Australia only) +65 3158 1074

Section 2 – Hazard(s) Identification

Classification of the hazardous chemical	
Health hazards	: Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 1 Sensitization – skin Category 1
Label elements, including precautionary statements	
Pictograms or Symbols	: 
Signal Word	: Danger
Hazard Statements	: H315 Causes skin irritation H317 May cause an allergic skin reaction H318 Causes serious eye damage
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) Wear protective gloves/protective clothing/eye protection/face protection(P280)
Response	: IF ON SKIN: Wash with plenty of water.(P302+P352) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing(P305+P351+P338) Immediately call a POISON CENTER/doctor(P310)

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If skin irritation or rash occurs: Get medical advice/attention(P333+P313)
Take off contaminated clothing and wash it before reuse.(P362+P364)

Storage : Not applicable.
Disposal : Dispose of waste in accordance with local,state and federal regulations.(P501)

Section 3 – Composition and Information on Ingredients

Substances or mixtures : Mixtures

Ingredients name	Contents	CAS RN
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester	30-40%	86273-46-3
Acrylate monomer	10-20%	Confidential
Titanium Oxide	5-15%	13463-67-7
2-Hydroxy-3-phenoxypropyl Acrylate	5-15%	16969-10-1
Dipropylene Glycol Diacrylate	5-15%	57472-68-1
1,6-Hexanediol diacrylate	5-15%	13048-33-4
Photo initiator	1-10%	Confidential
4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl	0.1-5%	2226-96-2
Additive	0.1-5%	Confidential

Section 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.

Section 5 – Fire Fighting Measures

Suitable extinguishing equipment : Dry chemicals, CO2, water spray or regular foam.

Not suitable extinguishing media : Cylindric water.

Specific hazards arising from the : Risk of producing harmful gases such as carbon monoxide. Avoid

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chemical : inhalation of smoke or gases.
Special protective equipment and precautions for fire fighters : Use goggles in combination with dust mask, and another protections as appropriate to situation.

Section 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.

Section 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.

Section 8 – Exposure controls and personal protection

Control parameters

	ACGIH (TLV)	OSHA (PEL)	Occupational Exposure Standards
Titanium dioxide	TWA 10 mg/m3,STEL –	15 mg/m3 TWA (total dust)	10 mg/m3 TWA (containing no asbestos and <1% crystalline silica, inhalable dust)

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

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equipment and prevent from static electricity.

Individual protection measures

Respiratory protection	: If necessary, wear respiratory protection.
Hand protection	: Wear protective gloves.
Eye and face protection	: Wear eye protection/face protection.
Skin protection	: Wear protective clothing.

Section 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/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: $\geq 130^{\circ}\text{C}$
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	: 1.0–1.2
Solubility	: Non-water-soluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: $23 \pm 3 \text{ mPa} \cdot \text{s} (25^{\circ}\text{C})$

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

Section 11 – Toxicological Information

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Acute toxicity (Oral)	<p>: Category 4:2226-96-2 (converted value = 500mg/kg, source: Registered substances (ECHA)), 86273-46-3 (toxicity value = 1908mg/kg, source: Self-classification)</p> <p>Category 5:57472-68-1 (toxicity value = 3530mg/kg, source: Self-classification)</p> <p>Classification not possible:13463-67-7 (source: 1272/2008/EC), 13048-33-4 (source: GHS Hazardous Chemical Information List), 16969-10-1 (source: Registered substances (ECHA)), Confidential (source: NITE), Confidential (source: GHS Hazardous Chemical Information List)</p> <p>No data:Confidential</p>
	<p>Calculation result = 2052.1635107mg/kg. Classification result = Classification not possible.</p>
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	<p>: Category 2:13048-33-4 (source: GHS Hazardous Chemical Information List), 57472-68-1 (source: Self-classification)</p> <p>Classification not possible:13463-67-7 (source: 1272/2008/EC), 2226-96-2 (source: Registered substances (ECHA)), 16969-10-1 (source: Registered substances (ECHA)), Confidential (source: NITE), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)</p> <p>No data:Confidential</p>
	<p>Sum of Category 2 Concentration limit = 10%. Classification result = Category 2.</p>
Serious eye damage/ irritation	<p>: Category 1:2226-96-2 (source: Registered substances (ECHA)), 16969-10-1 (source: Registered substances (ECHA)), 57472-68-1 (source: Self-classification)</p> <p>Category 2:13048-33-4 (source: GHS Hazardous Chemical Information List)</p> <p>Classification not possible:13463-67-7 (source: 1272/2008/EC), Confidential (source: NITE), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)</p> <p>No data:Confidential</p>
	<p>Sum of Eye category 1 Concentration limit = 3%. Classification result = Category 1.</p>
Respiratory Sensitization	: Unable to classify due to insufficient data.

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Skin Sensitization

: Category 1:13048-33-4 (source: GHS Hazardous Chemical Information List), 57472-68-1 (source: Self-classification), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)
 Category 1B:16969-10-1 (source: Registered substances (ECHA))
 Classification not possible:13463-67-7 (source: 1272/2008/EC), 2226-96-2 (source: Registered substances (ECHA)), Confidential (source: NITE)
 No data:Confidential

Germ cell mutagenicity

86273-46-3 >= 1% Classification result = Category 1

Carcinogenicity

: Unable to classify due to insufficient data.
 : Category 2:13463-67-7 (source: 1272/2008/EC)
 Classification not possible:2226-96-2 (source: Registered substances (ECHA)), 13048-33-4 (source: GHS Hazardous Chemical Information List), 16969-10-1 (source: Registered substances (ECHA)), Confidential (source: NITE), 57472-68-1 (source: Self-classification), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)
 No data:Confidential

13463-67-7 >= 1% Classification result = Category 2.

Because the shape is liquid, Changed from Category 2 to Classification not possible.

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

: Category 2:2226-96-2 (organ = spleen, liver, source: Registered substances (ECHA))
 Classification not possible:13463-67-7 (source: 1272/2008/EC), 13048-33-4 (source: GHS Hazardous Chemical Information List), 16969-10-1 (source: Registered substances (ECHA)), Confidential (source: NITE), 57472-68-1 (source: Self-classification), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)
 No data:Confidential

Substances classified as hazardous are below the concentration limit. Contains substance of unknown toxicity. Changed from Not

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Aspiration hazard : classified to Classification not possible.
: Unable to classify due to insufficient data.

Section 12 – Ecological Information

Hazardous to the Aquatic Environment – Acute Toxicity : Classification not possible:13463-67-7 (source: 1272/2008/EC), 2226-96-2 (source: Registered substances (ECHA)), 13048-33-4 (source: GHS Hazardous Chemical Information List), 16969-10-1 (source: Registered substances (ECHA)), Confidential (source: NITE), 57472-68-1 (source: Self-classification), Confidential (source: GHS Hazardous Chemical Information List), 86273-46-3 (source: Self-classification)
No data:Confidential

Hazardous to the Aquatic Environment – Chronic Toxicity : Contains substance of unknown toxicity. Changed from Not classified to Classification not possible.
: Category 2:16969-10-1 (source: Registered substances (ECHA))
Category 3:86273-46-3 (source: Self-classification)
Category 4:Confidential (source: GHS Hazardous Chemical Information List)
Classification not possible:13463-67-7 (source: 1272/2008/EC), 2226-96-2 (source: Registered substances (ECHA)), 13048-33-4 (source: GHS Hazardous Chemical Information List), Confidential (source: NITE), 57472-68-1 (source: Self-classification)
No data:Confidential

Hazardous to the Ozone layer : (M factor x 100 x Category 1) + (10 x Category 2) + Category 3 >= Concentration limit(25%). Classification result = Category 3. does not apply to the target country.
: Unable to classify due to insufficient data.

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

Section 14 – Transport Information

International regulations

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IMDG

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

IATA

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

ADG

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

Section 15 – Regulatory Information

High Volume Industrial Chemicals List : Listed
Industrial Chemicals Act : List of Chemicals with High Hazards for Categorisation

Section 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.
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herein are credible. However the company makes no warranty
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