Safety Data Sheets

SECTION 1: Identification

Product identifier
Material Name
Uvink LUS-150 Magenta
Product Description
LUS15-M-BA
Product Use
INK JET ink.
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

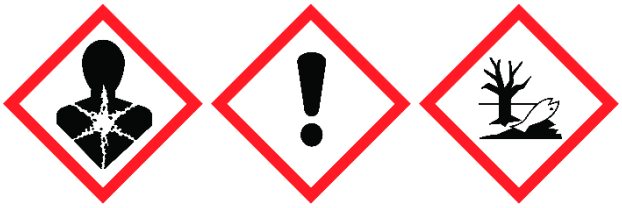
Importer / Distributor Information

MIMAKI SINGAPORE PTE. LTD.
31 Kaki Bukit Road 3 Singapore 417818 TechLink #02-03
Telephone number: +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
Acute Toxicity - Oral - Category 4 (63.52% unknown)
Acute Toxicity - Dermal - Category 4 (74.77% unknown)
Acute Toxicity - Inhalation - Vapor - Category 4 (76.24% unknown)
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 2
Skin Sensitization - Category 1
Specific Target Organ Toxicity - Single Exposure - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (liver , respiratory system)
Hazardous to the Aquatic Environment - Chronic - Category 2
Label elements
Hazard symbols



Signal word
Danger
Hazard statements
H302 Harmful if swallowed.
H312 Harmful in contact with skin.

H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.

Response

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor if you feel unwell.
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.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash before reuse.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P391 Collect spillage.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

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

Statement(s) of Unknown Acute Toxicity

Dermal	74.77% of the mixture consists of ingredient(s) of unknown acute toxicity.
Oral	63.52% of the mixture consists of ingredient(s) of unknown acute toxicity.
Inhalation	76.24% of the mixture consists of ingredient(s) of unknown acute toxicity.

Statement(s) of Unknown Aquatic Toxicity

42.5% of the mixture consists of ingredient(s) of unknown chronic aquatic toxicity.

Other Hazards Which Do Not Result in Classification

None known.

SECTION 3: Composition / information on ingredients

CAS	Component Name	Percent
66492-51-1	2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester	10-30
2235-00-9	2H-Azepin-2-one, 1-ethenylhexahydro-	10-30

5888-33-5	Isobornyl acrylate	10-30
48145-04-6	2-Propenoic acid, 2-phenoxyethyl ester	10-30
162881-26-7	Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	1-5
75980-60-8	Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	<3
15625-89-5	Trimethylolpropane triacrylate	<1
122-99-6	2-Phenoxyethanol	<1
42978-66-5	Tripropylene glycol diacrylate	<1

Impurities and stabilizing additives contributing to the GHS Classification
None

SECTION 4: First aid measures

Inhalation
Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.
Skin contact
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.
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
Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. allergic skin reaction, skin irritation, eye irritation, respiratory tract irritation
Delayed
liver damage, respiratory system damage
Indication of any immediate medical attention and special treatment needed
Treat symptomatically and supportively.

SECTION 5: Firefighting measures

Suitable 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.
Special Hazards Arising from the Chemical
Negligible fire hazard.
Hazardous combustion products
oxides of carbon, oxides of phosphorus, oxides of nitrogen, oxides of sulfur
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. For fires in cargo or storage area: Cool containers with water from

unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

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

Eliminate all ignition sources if safe to do so. 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Further information on storage conditions: Store and handle in accordance with all current regulations and standards. Store in a well-ventilated place. Grounding and bonding required. Keep separated from incompatible substances.

Incompatible Materials

oxidizing materials, acids, bases

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

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

PERSONAL PROTECTIVE EQUIPMENT

Eye/face protection

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

Appearance	magenta liquid	Physical State	liquid
Odor	chemical odor	Color	magenta
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	111 °C
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not self-igniting	Flash Point	Not applicable
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	Poorly soluble	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	1.08 g/cm3
Physical Form	liquid	Molecular Weight	Not available

Other information

No additional information available for the product.

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)

oxidizing materials, acids, bases

Hazardous decomposition products

oxides of carbon, oxides of phosphorus, oxides of nitrogen, oxides of sulfur

SECTION 11: Toxicological information

Information on Likely Routes of Exposure
Inhalation:
Harmful if inhaled, respiratory tract irritation
Skin contact
Harmful in contact with skin, skin irritation, allergic skin reaction
Eye contact
eye irritation
Ingestion
Harmful if swallowed. nausea, vomiting, stomach pain
Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:
Isobornyl acrylate (5888-33-5)
Oral LD50 Rat 4890 mg/kg
2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)
Oral LD50 Rat 4660 µL/kg
Trimethylolpropane triacrylate (15625-89-5)
Dermal LD50 Rabbit 5000 mg/kg
2-Phenoxyethanol (122-99-6)
Oral LD50 Rat 1260 mg/kg
Dermal LD50 Rabbit 5 mL/kg
Tripropylene glycol diacrylate (42978-66-5)
Oral LD50 Rat 6200 mg/kg
Dermal LD50 Rabbit >2 g/kg
Acute Toxicity Estimate

Dermal	1168.0555 mg/kg
Inhalation - Vapor	11 mg/L
Oral	760.4375 mg/kg

Immediate Effects
Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. skin irritation, eye irritation, respiratory tract irritation, allergic skin reaction
Delayed Effects
liver damage, respiratory system damage
Irritation/Corrosivity Data
skin irritation, eye irritation, respiratory tract irritation
Respiratory Sensitization
No information available for the product.
Dermal Sensitization
May cause an allergic skin reaction.
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
respiratory tract irritation
Specific Target Organ Toxicity - Repeated Exposure
liver damage, respiratory tract damage
Aspiration hazard
No information available for the product.
Medical Conditions Aggravated by Exposure
No information available for the product.

SECTION 12: Ecological information

Ecotoxicity
Toxic to aquatic life with long lasting effects.
Component Analysis - Aquatic Toxicity

2-Phenoxyethanol	**122-99-6**
Fish:	LC50 96 h Pimephales promelas 337 - 352 mg/L [flow-through]; LC50 96 h Pimephales promelas 366 mg/L [static]
Algae:	EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >500 mg/L IUCLID
Tripropylene glycol diacrylate	**42978-66-5**
Algae:	EC50 72 h Desmodesmus subspicatus >28 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 88.7 mg/L IUCLID

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:
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , (Contains: Tripropylene glycol diacrylate)
Hazard Class: 9
UN#: UN3082
Packing Group: III
Required Label(s): 9
Special Provision : A197 *1

ICAO Information:
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , (Contains: Tripropylene glycol diacrylate)
Hazard Class: 9
UN#: UN3082
Packing Group: III
Required Label(s): 9

IMDG Information:
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , (Contains: Tripropylene glycol diacrylate)
Hazard Class: 9
UN#: UN3082
Packing Group: III
Required Label(s): 9
Special Provision : 2.10.2.7 *1

Component Marine Pollutants (IMDG)
Not a marine pollutant.

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.

2-Phenoxyethanol	**122-99-6**
IBC Code:	Category Z

Special precautions
No additional information is available.

*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
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

Safety Data Sheets

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

2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester (66492-51-1)

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	No	Yes	No	Yes	No	Yes	Yes	No	Yes

2H-Azepin-2-one, 1-ethenylhexahydro- (2235-00-9)

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	Yes	No	Yes	No	Yes	Yes	No	Yes

Isobornyl acrylate (5888-33-5)

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	Yes	Yes	No	No	Yes	Yes	No	Yes

2-Propenoic acid, 2-phenoxyethyl ester (48145-04-6)

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	No	Yes

Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- (162881-26-7)

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	ELN	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes

Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide (75980-60-8)

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	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Trimethylolpropane triacrylate (15625-89-5)

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	Yes	Yes	No	No	Yes	Yes	Yes	Yes

2-Phenoxyethanol (122-99-6)

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	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Tripropylene glycol diacrylate (42978-66-5)

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	Yes	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; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , 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.