

Safety Data Sheets

1. Identification

Product Name	: IJ Primer PR-100
Order No.	: PR100-Z-BA/SPC-0732/SPC-0731
General Use	: For ink jet printer
Product Description	: The undercoating liquid
SDS Number	: 037-0050453
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.	: +1-678-730-0170
Emergency Telephone No.	: +81-268-64-2281

2. Hazards Identification

[GHS Classification]

Physical Hazards

Flammable Liquids : Not classified

Health Hazards

Skin Corrosion / Irritation : Category 2

Eye Damage / Irritation : Category 2A

Sensitization – Skin : Category 1A

Toxic to Reproduction : Category 2

Specific Target Organ Toxicity : Category 3

(Single Exposure)

Specific Target Organ Toxicity : Category 1 (central nervous system, blood,
(Repeated Exposure) respiratory system, and thyroid gland)

Environmental Hazards

Hazardous to the Aquatic : Category 1

Environment - Acute Hazard

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Hazardous to the Aquatic : Category 1

Environment - Long Term Hazard

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

[GHS Label Elements]

Symbol



Signal Word

Danger

Hazard Statements

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction
- H319 Cause serious eye irritation
- H335 May cause respiratory irritation.
- H361 Suspected of damaging fertility or the unborn child
- H372 Causes damage to organs through prolonged or repeated exposure (central nervous system, blood, respiratory system, and thyroid gland)
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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

[Response]

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- 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+P313 IF exposed or concerned: Get medical advice/attention.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash before re-use.
- P391 Collect spillage.

[Storage]

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

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P405 Store locked up.

[Disposal]

P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

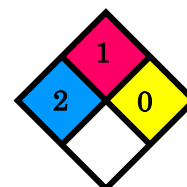
NFPA Rating (scale 0 – 4)

Health = 2

Flammability = 1

Instability = 0

Special = None



3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Acryl acid ester A	40-50	Trade Secret
2	Acryl acid ester B	30-40	Trade Secret
3	Initiator	5-15	Trade Secret
4	Acryl acid ester C	5-10	Trade Secret
5	Additive	0.1-1	Trade Secret

4. First Aid Measures

Inhalation	: Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if not 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. If irritation or pain persists after fifteen minutes of eye irrigation, seek medical attention.
Skin Contact	: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.
Ingestion	: If swallowed, get medical attention. If vomiting occurs, keep head lower than hips to help prevent aspiration.
Most Important Symptoms/Effects	
Acute	: skin irritation, eye irritation, allergic skin reaction, respiratory tract irritation.
Delayed	: allergic skin reaction, reproductive effects, central nervous system

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damage, blood disorders, respiratory system damage, thyroid effects.

Indication of Immediate : Treat symptomatically and supportively.

Medical Attention and

Special Treatment

Needed, If Needed

5. Fire Fighting Measures

Flammable Properties : Flash point >93°C

Extinguishing Media : carbon dioxide, regular dry powder, 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 : Irritating fumes and gases may be released upon thermal processing or during combustion.

Hazardous Combustion Products : oxides of carbon.

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.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures : Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and : Eliminate all ignition sources if safe to do so. Stop leak if possible without personal risk. Reduce vapors with water spray.

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Cleaning Up	<p>Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.</p> <p>Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.</p>
Environmental Precautions	: Avoid release to the environment.

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. Use only outdoors or in a well-ventilated area. 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. Contaminated work clothing should not be allowed out of the workplace.
Conditions for Safe Storage, including any Incompatibilities	: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.
Incompatible Materials	: oxidizing materials, acids, bases, peroxides.

8. Exposure Controls / Personal Protection

Component Exposure Limits	: The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.
ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)	: There are no biological limit values for any of this product's components.
Exposure Controls	
Occupational Exposure Controls	
Appropriate Engineering Controls	: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

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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.



Eye Protection : Wear splash resistant safety goggles with a faceshield.



Skin Protection : Wear appropriate chemical resistant clothing.



Protective Materials : Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

9. Physical and Chemical Properties

Appearance	- Physical State	: Liquid
	- Color	: pale yellow clear
Odor		: unique odor
pH		: Not available
Boiling Point / Boiling Range		: Not available
Melting Point / Melting Range		: Not available
Decomposition Temperature		: Not available
Flash Point		: >93°C
Auto ignition temperature		: Not available
Flammability (Solid, Gas)		: Not available
Explosive Properties		: Not available
Oxidizing Properties		: Not available
Upper / Lower Flammability or		: Not available

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Explosive Limits

Vapor Pressure

Specific Gravity : 1.03 (25°C)

Solubility : Not available

Water Solubility : Not available

Partition Coefficient (n-octanol / Water) : Not available

Viscosity : 19±3 mPa · s (25°C)

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.

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, acids, bases, peroxides.

Hazardous : Combustion: oxides of carbon.

Decomposition

11. Toxicological Information

Acute Toxicity : The components of this material have been reviewed in various

Component Analysis - sources and the following selected endpoints are published:

LD50/LC50

Acryl acid ester A (Trade Secret)

Oral LD50 Rat 4890 mg/kg

Acryl acid ester C (Trade Secret)

Oral LD50 Rat 4435 mg/kg

Dermal LD50 Rabbit 7522 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Dermal > 2000 mg/kg

Oral > 2000 mg/kg

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Information on Likely Routes of Exposure

Inhalation	: irritation, headache, respiratory system damage.
Ingestion	: vomiting, nausea.
Skin Contact	: irritation, allergic skin reaction.
Eye Contact	: irritation
Immediate Effects	: skin irritation, eye irritation, allergic skin reaction, respiratory tract irritation.
Delayed Effects	: allergic skin reaction, reproductive effects, central nervous system damage, blood disorders, respiratory system damage, thyroid effects.
Irritation/Corrosivity	: skin irritation, eye irritation.
Data	
Respiratory	: No information available for the product.
Sensitization	
Dermal Sensitization	: May cause an allergic skin reaction.
Component	: Acryl acid ester C (Trade Secret)
Carcinogenicity	IARC: Monograph 60 [1994] (Group 3 (not classifiable))
Germ Cell Mutagenicity	: No information available for the product.
Tumorigenic Data	: No information available for product.
Reproductive Toxicity	: Available data characterizes components of this product as reproductive hazards.
Specific Target Organ	: respiratory tract.
Toxicity - Single	
Exposure	
Specific Target Organ	: central nervous system, blood, respiratory system, thyroid gland.
Toxicity - Repeated	
Exposure	
Aspiration Hazard	: Not expected to be an aspiration hazard.
Medical Conditions	: No information available for the product.
Aggravated by Exposure	

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.

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Ecotoxicity	: Very toxic to aquatic life with long lasting effects.
Component Analysis	: Acryl acid ester C (Trade Secret)
Aquatic Toxicity	Algae: EC50 72 h Desmodesmus subspicatus 44 mg/L IUCLID ; EC50 96 h Desmodesmus subspicatus 47 mg/L IUCLID Invertebrate: EC50 48 h Daphnia magna 17.45 mg/L IUCLID
Persistence and Degradability	: No information available for the product.
Bioaccumulation	: No information available for the product.
Mobility	: No information available for the product.
Other Toxicity	: No information available for the product.

13. Disposal Considerations

	: Comply with all USA, national and local regulations. <u>Do not dump this product into sewers, on the ground or into any body of water.</u>
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.
Disposal of Contaminated Packaging	: Empty containers may contain product residue. Dispose in accordance with all applicable regulations.

14. Transport Information

US DOT Information	
Shipping Name	: Environmentally hazardous substance, liquid, n.o.s. (Contains: Acryl acid ester)
UN Number	: UN3082
Hazardous Class or Division	: 9
Packing Group (PG)	: III
Label(s) Required	: 9
TDG Information	
Shipping Name	: Environmentally hazardous substance, liquid, n.o.s. (Contains: Acryl acid ester)

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UN Number	: UN3082
Hazardous Class or Division	: 9
Packing Group (PG)	: III
Label(s) Required	: 9
Marine Pollutant	: No component(s) of this material is specifically listed in the IMDG Code as an identified 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. Acryl acid ester C (Trade Secret) IBC Code: Category Y
Remarks	: Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) is excepted from Dangerous Goods regulations. Refer to ICAO/IATAA197, IMDG 2.10.2.7, ADR SP 375.

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 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
SARA Section 311/312 (40 CFR 370 Subparts B and C) 2016 reporting categories	: Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No
SARA Section 311/312 (40 CFR 370 Subparts B and C) 2017 reporting categories	: Reproductive Toxicity; Skin Corrosion/Irritation; Respiratory/Skin Sensitization; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity
U.S. State Regulations	: The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Acryl acid ester C	Trade Secret	No	Yes	No	Yes	Yes

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California Proposition 65

: WARNING


This product can expose you to chemicals including Phenyl glycidyl ether and Toluene, which are known to the State of California to cause cancer/ birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canada Regulations

Canadian WHMIS

Ingredient Disclosure List (IDL)

: Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

Acryl acid ester C (Trade Secret)

1%

Component Analysis – Inventory

Acryl acid ester A (Trade Secret)

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

Acryl acid ester B (Trade Secret)

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	NSL	EIN	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes

Initiator (Trade Secret)

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

Acryl acid ester C (Trade Secret)

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



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Additive (Trade Secret)

US	CA	EU	AU	PH	JP ENCs	JP ISHL	KR KECI Annex 1	KR KECI Annex 2	KR REACH CCA	CN	NZ	MX	TW
No	No	No	No	No	No	No	No	No	No	No	No	No	No

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; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); 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



Product Name: IJ Primer PR-100

SDS No. 037-0050453

First issue: 2016/07/27

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- 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

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