

## Safety Data Sheets

### 1. Identification

Product Name	: UV Primer GM-1
Order No.	: SPC-0541
General Use	: For ink jet
Product Description	: The undercoating liquid
SDS Number	: 037-0010576
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.	: +1-678-730-0700
Emergency Telephone No.	: +81-268-64-2281

### 2. Hazards Identification

#### [GHS Classification]

##### Physical Hazards

Flammable Liquids : Category 2

##### Health Hazards

Acute Toxicity – Oral : Not classified

Acute Toxicity – Dermal : Not classified

Acute Toxicity – Inhalation : Not classified

Skin Corrosion / Irritation : Not classified

Eye Damage / Irritation : Category 2

Sensitization – Respiratory : Not classified

Sensitization – Skin : Category 1

Germ Cell Mutagenicity : Category 1

Carcinogenicity : Not classified

Toxic to Reproduction : Category 1

Specific Target Organ Toxicity : Category 3 (respiratory irritation)  
(Single Exposure)

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Specific Target Organ Toxicity : Category 1 (liver)  
(Repeated Exposure) Category 2 (nerve)

### Environmental Hazards

Hazardous to the Aquatic : Not classified

Environment - Acute Hazard

Hazardous to the Aquatic : Not classified

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

- H225 Highly flammable liquid and vapour
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H340 May cause genetic defects
- H360 May damage fertility or the unborn child
- H372 Causes damage to organs (liver) through prolonged or repeated exposure
- H373 May cause damage to organs (nerve) through prolonged or repeated exposure

### 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.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P260 Do not breathe gas/mist/vapours.
- P264 Wash hands and eyes 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.

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

[Response]

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.  
Rinse skin with water[or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep 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/doctor if you feel unwell.

P321 Specific treatment (see 4-Response on our website/SDS URL:  
[www.mimaki.co.jp/sds](http://www.mimaki.co.jp/sds)).

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 it before reuse.

P370+P378 In case of fire: Use Carbon dioxide, Alcohol-resistant-related fire foam,  
powder, dry sand for extinguish.

[Storage]

P405 Store locked up.

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

[Disposal]

P501 Dispose of contents and container in accordance with local, regional, national and international regulation.

HMIS Rating (scale 0 – 4)

Health = 2\*

Flammability= 3

Reactivity = 1

②	Health
③	Flammability
①	Reactivity
○	Protective Equipment

\*additional chronic hazards present

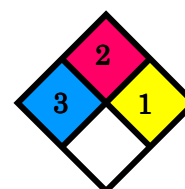
NFPA Rating (scale 0 – 4)

Health = 3

Flammability = 2

Instability = 1

Special =



### 3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.	Chemical Formula
1	Ethanol	80-90	64-17-5	CH <sub>3</sub> CH <sub>2</sub> OH
2	Water	10-20	7732-18-5	H <sub>2</sub> O
3	Others	1-5	Trade Secret	Trade Secret

OSHA Hazardous Components (29 CFR 1910.1200) : None of the chemicals in this product are considered highly hazardous by OSHA.

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### 4. First Aid Measures

Inhalation	: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a POISON CENTER or doctor/physician. Do not use mouth-to-mouth resuscitation.
Eye Contact	: 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.
Skin Contact	: Remove all contaminated clothing, shoes and socks from the affected areas as quickly as possible. Wash the affected area under running water using a mild soap. If irritation persists, arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.
Ingestion	: Never give anything by mouth to someone who is unconscious or convulsing. If the victim is responsive, give him one or two glasses of water. And refer for medical attention.
Indication of Immediate Medical Attention and Special Treatment Needed, If Needed	: Treat symptomatically and supportively.

### 5. Fire Fighting Measures

Flammable Properties	: The harmful gas such as carbon monoxide or the low molecule monomer occurs by combustion. Flash Point: 13degree C (Cleveland open cup)
Extinguishing Media	: Dry chemical powder, form and carbon dioxide, water spray.
Fire Fighting Instructions	: Fight fire from maximum distance. Shut off fuel to fire if possible to do so without hazard. Wear full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus).

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### 6. Accidental Release Measures

- Personal Precautions : Wear personal protective clothing and equipment, see Section 8.  
Shut off all sources of ignition; No smoking or flames in area.
- Land Spill : Absorb spill with inert material (e.g., dry sand or earth), then place  
in closed containers using non-sparking tools.
- Water Spill : Prevent spills from entering sewers, watercourses or low areas. Do  
not wash away into shower or waterway.

### 7. Handling and Storage

- Handling : Obtain SDS (Safety Data Sheet) and printer's operation manual  
before use. Do not handle until all safety precautions have been read  
and understood. Keep away from heat, hot surfaces, sparks, open  
flames and other ignition sources. No smoking. Keep container  
tightly closed. Ground and bond container and receiving equipment.  
Use explosion-proof [electrical/ventilating/lighting] equipment. Use  
non-sparking tools. Take action to prevent static discharges. Do not  
breathe gas/mist/vapours. Wash hands and eyes thoroughly after  
handling. Do not eat, drink or smoke when using this product. Use  
only outdoors or in a well-ventilated area. Contaminated work  
clothing should not be allowed out of the workplace. Wear protective  
gloves/protective clothing/eye protection/face protection. Keep  
container closed when not in use. Make available in the work area  
emergency shower and eyes wash. Avoid contact with skin or eyes.  
Only use tools and equipment resistant to organic solvents. Do not  
flush to sewer or waterways.
- Storage : Store locked up. Store product in tightly closed original containers in  
dry and cool place protected from sunlight fluorescent light,  
preferably at below 25 degree C on impermeable ground. Steam and  
moisture are prevented being mixed. Keep away from heat, sparks,  
and flame. Keep away from sources of ignition. Do not store near  
perchlorates, peroxides, chromic acid or nitric acid.

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## 8. Exposure Controls / Personal Protection

### Exposure Limit Values

No	Chemical Name		TWA/ TLV
1	Ethanol	ACGIH	1000ppm TWA , 1900mg/m <sup>3</sup> TWA
		NIOSH	1000ppm TWA , 1900mg/m <sup>3</sup> TWA
		OSHA PEL	1000ppm TWA , 1900mg/m <sup>3</sup> TWA

### Exposure Controls

#### Occupational Exposure Controls

**Engineering Controls** : Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Use exhaust ventilation to keep airborne concentration below exposure limits. Use explosion-proof [electrical/ventilation/lighting] equipment.

**Personal Protection** : Follow the general guidelines of good industrial hygiene.

Avoid any direct contact with the product.

Never breathe product vapor.

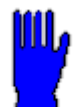
**Respiratory Protection** : Wear gas masks for organic gases.

Wear ventilation masks when working in closed area.

An air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where air-borne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited.

**Hand Protection** : Wear gloves that resist organic solvents and chemicals.



Gloves

**Eye Protection** : Wear coverall, chemical goggles and face shield when handling.



Safety Glasses

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Skin Protection



: To prevent any contact, wear impervious clothing such as gloves, apron, boots, or whole body suits made from neoprene, as appropriate.

Environmental Exposure Controls

: Not available

### 9. Physical and Chemical Properties

Appearance	- Physical state	: liquid
	- Color	: Clear
Odour		: Characteristic
pH		: 3~5
Boiling Point / Boiling Range		: 78 degree C (101.325kPa) /Ethanol
Melting Point / Melting Range		: Not applicable
Flash Point		: 13 degree C (Cleveland open cup) /Ethanol
Auto-Ignition Temperature		: 439 degree C /Ethanol
Explosive Properties		: the lower limit 3.3vlo%, the upper limit 19.0vol% /Ethanol
Vapour Pressure		: 5.878kPa (20 degree C) /Ethanol
Vapor Density		: 1.59 (air=1) / Ethanol
Solubility		: Soluble (Alcohol, Ether)
Water solubility		: Soluble
Viscosity		: 1.2mPa·s (20 degree C) /Ethanol
Partition Coefficient(n-octanol / water)		: logPow-0.3 /Ethanol

### 10. Stability and Reactivity

Conditions to Avoid	: Sunlight, heat, open flames, high temperature, sparks, static electrical charge, other ignition sources, moisture
Stability	: Stable under the usual handling conditions.
Materials to Avoid	: Oxidizers, peroxides, acids, acid chlorides, acid anhydrides, alkali metals, ammonia
Decomposition Products	:Methanol(Flammable and Poisonous liquid), carbon monoxide may be formed.

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### 11. Toxicological Information

Acute Toxicity	: Ethanol Oral LD50 Rat; 9000mg/kg Inhalation LC50 Rat; 20000ppm/10h
Eye Irritation	: Ethanol rabbit; 500mg/24H; Mild(85JCAE -, 189, 1986)
Skin Irritation	: Ethanol rabbit; 20mg/24H; Moderate(85JCAE -, 189, 1986)
Mutagenicity	: Ethanol DNA damage; S.cerevisiae; 850mmol/L(MUREAV 326,165,1995) Mutation in microorganisms; S.typhimurium; 11pph(ENVRAL 52, 225, 1990) Cytogenetic analysis; human; lymphocyte; 2.5pph/24H(MUREAV 537, 117, 2003)
Carcinogenicity	: Ethanol ACGIH : A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans IARC : Monograph 100E [2012] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) OSHA : Present
Reproductive and Developmental Toxicity	: Ethanol TDLo(oral,woman): 250mg/kg(37 W preg); Effects on Embryo or Fetus - other effects to embryo(AJOGAH 145,251,1983) TDLo(oral,rat): 22.5gm/kg(11-20 D preg); Specific Dvelopmental Abnormalities - Central Nervous Systems(NETEEC 24, 719, 2002)
Others	: Ethanol TUMORIGENIC DATA : TDLo(oral,mouse): 320mg/kg/50W-I(CALEDQ 13,345,1981)

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### 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.

Ecotoxicity	: Ethanol
	Trout baby; LC50 11.2g/l·24h
	A kind of carp; LC50 18~13.4g/l 96h
	Creek chub; LC50 7g/l·24h
	Guppy; LC50 11g/l·7day
Persistence And	: Ethanol
Degradability	BOD 0.93~1.67mg/mg
Bioaccumulative	: Not available.
Potential	
Other Adverse Effects	: Not available.

### 13. Disposal Considerations

: Comply with all USA, national and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

### 14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

Follow all regulation in your country.

Us Department of Transportation (DOT)

Hazardous Materials	: Ethanol
Hazardous Materials	: Ethanol, mixture
Description and Proper Shipping Name	
Hazardous Class or Division	: 3 Combustible liquid



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Identification Number : UN1170

Packing Group (PG) : II

Label(s) Required : 3

### Sea Transport (IMDG)

Class : 3

Packing Group (PG) : II

UN Number : 1170

Proper Shipping Name : Ethanol, mixture

Marine Pollutant : No

### Air Transport (ICAO/IATA)

Class : 3

Packing Group(PG) : II

UN Number : 1170

Proper Shipping Name : Ethanol, mixture

## 15. Regulatory Information

OSHA Status : None of the chemicals in this product are considered highly hazardous by OSHA.

TSCA Status : All components on TSCA INVENTORY.

CERCLA Reportable : Not Applicable

### Quantity

(40 CFR 117, 302)

### SARA Title

Section 302 : Not Applicable

(40 CFR 355)

Section 311/312 : Not Applicable

(40 CFR 370)

Section 313 : Not Applicable

(40 CFR 372)

Others : Please refer to any other federal, state and local regulations.



Product Name: UV Primer GM-1

SDS No. 037-0010576

First issue: 2008/02/08

Revised: 2015/07/07

## Safety Data Sheets

### 16. Other Information

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Mimaki Engineering Corporation.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

Mimaki Engineering Corporation assumes no legal responsibility for use or reliance upon this information.