

Material Safety Data Sheets

1. Product and Company Identification

Product Name	: UV ink LF-200 White
Product Code	: SPC-0591W
General Use	: Inkjet Ink
Product Description	: UV Inkjet Ink
MSDS Number	: 031-35U05WC
Manufacture	
Company Name	: MIMAKI ENGINEERING Co., Ltd.
Address	: 2182-3 Otsu, Shigeno, 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.	: 1-678-730-0100
Emergency Telephone No.	: +81-268-64-2413

2. Hazards Identification

Emergency Overview	: Specific Physical Form: Liquid Odor, Color, Grade: Acrylate Odor, White Color General Physical Form: Liquid Immediate health, physical, and environmental hazards: Hazardous polymerization may occur. May cause allergic skin reaction. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.
Potential Health Effects	
Inhalation:	Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May be absorbed following inhalation and cause target organ effects.
Eye Contact:	Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

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4. First Aid Measures

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Inhalation	: Remove person to fresh air. If signs/symptoms develop, get medical attention.
Eye Contact	: Flush eyes with large amounts of water .If signs/symptoms persist, get medical attention.
Skin Contact	: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.
Ingestion	: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

5. Fire Fighting Measures

Flammable Properties	Autoignition temperature	: No Data Available
	Flash Point	: > =201 degree Fahrenheit [Test Method: Closed Cup]
	Flammable Limits – LEL	: No Data Available
	Flammable Limits – UEL	: No Data Available
Extinguishing Media	: Ordinary combustibile material. Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).	
Protection of Fire Fighters		
Special Fire Fighting Procedures	: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).	
Unusual Fire and Explosion Hazards	: None inherent in this product.	

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

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6. Accidental Release Measures

Observe precautions from other sections.

Evacuate unprotected and untrained personnel from hazard area.

The spill should be cleaned up by qualified personnel.

Ventilate the area with fresh air.

For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice.

Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

Collect the resulting residue containing solution.

Place in a closed container approved for transportation by appropriate authorities.

Dispose of collected material as soon as possible.

Contain spill.

Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material.

Mix in sufficient absorbent until it appears dry.

Collect as much of the spilled material as possible.

Clean up residue with an appropriate solvent selected by a qualified and authorized person.

Ventilate the area with fresh air.

Read and follow safety precautions on the solvent label and MSDS.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state and federal regulations.

7. Handling And Storage

- Handling : Do not eat, drink or smoke when using this product.
Wash exposed areas thoroughly with soap and water.
Avoid breathing of vapors, mists or spray.
Avoid skin contact. Avoid skin contact with hot material.
Avoid eye contact with vapors, mists, or spray.
Avoid contact with oxidizing agents.
- Storage : Store away from heat. Store out of direct sunlight.
Store away from oxidizing agents.

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8. Exposure Controls / Personal Protection

Exposure Limit Values

No.	Chemical Name		TWA	Additional Information
1	Isooctyl Acrylate	AIHA	5 ppm	
2	Silica	CMRG	3 mg/m ³ (as respirable dust)	
3	Titanium Dioxide	ACGIH	10 mg/m ³	Table A4
		CMRG	5 mg/m ³ (as respirable dust)	
		OSHA	10 mg/m ³ (Vacated, as dust)	
		OSHA	15 mg/m ³ (as total dust)	Table Z-1

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

Source of exposure limit data:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

Exposure Controls

Occupational Exposure Controls

Engineering Controls : Provide local exhaust ventilation at transfer points.
 Provide Appropriate local exhaust when product is heated.
 Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

Personal Protection

Respiratory Protection : Avoid breathing of vapors, mists or spray.



Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations:

Half facepiece or fullface air-purifying respirator with organic vapor cartridges.

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Eye/Face Protection



: Avoid eye contact with vapors, mists, or spray. The following eye protection(s) are recommended:

Safety Glasses with side shields, Indirect Vented Goggles.(Goggles recommended when a splash potential exists.)

Skin Protection



: Avoid skin contact.Avoid skin contact with hot material.

Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment.

Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.Gloves made from the following material(s) are recommended: Nitrile Rubber.

Prevention of Swallowing

: Do not eat, drink or smoke when using this product.

Wash exposed areas thoroughly with soap and water.

9. Physical And Chemical Properties

Appearance	- Physical state	: Liquid
	- Color	: White
Odor		: Acrylate odor
pH		: Not Applicable
Boiling Point / Boiling Range		: >=201 degree F
Melting Point / Melting Range		: Not Applicable
Flash Point		: >=201 degree F [Test Method: Closed Cup]
Auto-ignition Temperature		: No data available
Flammable Limits		: No data available
Vapor Density		: >1 [ref Std: Air=1]
Vapor Pressure		: <10 mmHg [20 degree C]
Density		: 1.13 g/ml
Water Solubility		: Negligible
Viscosity		: 7~11mPa·s (45 degree C)
Specific Gravity		: 1.13 [Ref Std: WATER=1]

10. Stability And Reactivity

Stability : Stable

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Conditions To Avoid : Heat
Materials to Avoid : Strong oxidizing agents
Hazardous Polymerization : Hazardous polymerization may occur.
(Upon depletion of inhibitor or exposure to heat)

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

11. Toxicological Information

Acute Toxicity : Not available
Eye Irritation : Moderate eye irritation.
Skin Irritation : Moderate skin irritation.
Inhalation : The irritation to the respiratory system.
Ingestion : A gastrointestinal tract organization may be irritated.
Sensitization : May cause allergic skin irritation.
Mutagenicity : Not available
Carcinogenicity : Contains a chemical which can cause cancer
;Titanium dioxide(13463-67-7)(IARC :2B)
Reproductive And : Contains a chemical which can cause birth defects or other
Developmental Toxicity reproductive effects

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 : Not available
Persistence and Degradability : Not available
Bioaccumulative Potential : Not available
Other Adverse Effects : Not available

13. Disposal Considerations

Waste Disposal Method : Incinerate in a permitted hazardous waste incinerator in the presence of a combustibile material. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

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

Since regulations vary, consult applicable regulations or authorities before disposal.

14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

UN, IMO, ICAO: Not regulated

15. Regulatory Information

US Federal regulations

Section 311/312 : Fire Hazard-No Pressure Hazard-No Reactivity Hazard-No
Immediate Hazard – Yes Delayed Hazard - Yes

TSCA Status : The components of this product are in compliance with the chemical notification requirements of TSCA.

Please refer to any other USA, national and local measures.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200

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.

Revision history

Version	Date	Content
1.0	2010/02/01	First issue