Material Safety Data Sheets

1. Product and Company Identification

Product Name	: UVink F-200 Washing Liquid
Product Code	: SPC-0516FS
General Use	: For ink jet
Product Description	: Solvent liquid
MSDS Number	:031-33C070C
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	: Appearance clear, colorless liquid Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.
Potential Health Effects	
Inhalation	: May cause respiratory tract irritation.
Eye Contact	: May cause eye irritation.
Skin Contact	: May cause skin irritation.
Ingestion	: May cause irritation of the digestive tract.
Carcinogens	: No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.
Potential Environmental Effects	: No information available.

Material Safety Data Sheets

HMIS Rating (scale 0 – 4)

Health: 2
Flammability: 1
Reactivity: 0
Protective Equipment: J

NFPA Rating (scale 0 – 4)

Health: 2
Flammability: 1
Instability: 0

3. Composition / Information On Ingredients

No	Chemical Name	Wt%	CAS No.	Chemical Formula
1	Ethanol, 2-(2-ethoxyethoxy)-, acetate	100	112-15-2	C8H16O4

OSHA Hazardous Components (29 CFR 1910. 1200) : None of the chemicals in this product are considered highly hazardous by OSHA.

4. First Aid Measures

Inhalation : Remove from exposure and move to fresh air immediately.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical aid if cough or other symptoms appear.

Eye Contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention if symptoms occur.

Skin Contact : Wash with soap and water. Get medical attention if symptoms occur.

Ingestion : Do not induce vomiting.
Never give anything by mouth to an unconscious person.
If the victim is not breathing, perform mouth-to-mouth resuscitation.
Seek immediate medical attention.

Material Safety Data Sheets

5. Fire Fighting Measures

Flammable Properties	: Autoignition Temperature: 310 deg C (590 deg F) Flash Point: CLOSED CUP: 99.4 deg C (210.9 deg F) OPEN CUP: 110 deg C (230 deg F). Flammable Limits: LOWER: 1% UPPER: 19.4% Flammability of the product: May be combustible at high temperature.
Extinguishing Media	: Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate form.
Fire Fighting Instructions	: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated. Cool containers with flooding quantities of water until well after fire is out.

6. Accidental Release Measures

Personal Precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment. Use proper personal protective equipment as indicated in Section 8.
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Methods for cleaning up	: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dikes spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling And Storage

Handling	: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Use with adequate ventilation.
Storage	: Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Material Safety Data Sheets

8. Exposure Controls / Personal Protection

Exposure Limit Values : none listed

Exposure Controls

Occupational Exposure Controls

Engineering Controls : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal Protection

Respiratory Protection : Vapor respirator. Be sure to use an approved/certified respirator or equivalent. A self contained breathing apparatus should be used to avoid inhalation of the product. Not required if handled in a ventilated enclosure. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.
Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hand Protection : Gloves. Natural rubber (latex).

Eye Protection : Splash goggles. Safety glasses.
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin Protection : Wear appropriate protective gloves to prevent skin exposure.
Wear appropriate protective clothing to prevent skin exposure.

Material Safety Data Sheets

9. Physical And Chemical Properties

Appearance	- Physical state	: liquid
	- Colour	: clear, colorless
Odour		: acetic odor
pH		: Not available
Boiling Point / Boiling Range		: 218.5 deg C (425.3 deg F)
Melting Point / Merting Range		: -25deg C (-13deg F)
Decomposition Temperature		: Not available
Flash Point		: CLOSED CUP: 99.4 deg C (210.9 deg F)
Auto-Ignition Temperature		: 310 deg C (590 deg F)
Flammability(solid, gas)		: Not available
Vapour Pressure		: 0.05 mm of Hg (20 deg C)
Specific Gravity		: 1.0096 (Water = 1)
Solubility		: Soluble in methanol, acetone
Water solubility		: miscible
Viscosity		: 2.8mPa (20 deg C)
Vapour density		: 6.07 (Air = 1)
VOC		: 100%

10. Stability And Reactivity

Conditions To Avoid	: Incompatible materials, ignition sources, excess heat, strong oxidants.
Stability	: Stable under normal temperatures and pressures.
Materials To Avoid	: Strong oxidizing agents.
Hazardous Reactions/ Decomposition Products	: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

11. Toxicological Information

Acute Toxicity : LD50

Oral			Dermal	Skin
Rabbit	rat	Guinea pig	Rabbit	Rabbit
4400 mg/kg	11000mg/kg	3930 mg/kg	15000 mg/kg	15100ul/kg

Eye Irritation	: Moderately irritating to eyes. Draize test, rabbit, eye: 500mg Moderate
Skin Irritation	: Moderately irritating to the skin.
Sensitization	: Not available.
Mutagenicity	: Not available.
Carcinogenicity	: No listed by ACGIH, IARC, NTP, or CA Prop 65.

12. Ecological Information

Ecotoxicity	: Not available.
Persistence And Degradability	: Products of degradation; these products are carbon oxides and water. Toxicity of the products of biodegradation; the product itself and its products of degradation are not toxic.
Bioaccumulative Potential	: Not available.
Other Adverse Effects	: 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.

13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

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

EPA Hazardous Waste Number (RCRA): Not regulated

14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

DOT, IMDG, ICAO/IATA, UN: Not regulated.

TDG: Not available.

15. Regulatory Information

OSHA Status	: None of the chemicals in this product are considered highly hazardous by OSHA.
TSCA Status	: TSCA 8(a) PAIR: 2-(2-Ethoxyethoxy)ethyl acetate TSCA 8(b) inventory: All components listed.
Cercle Reportable Quantity	: Not Applicable
SARA Codes	: CAS # 112-15-2: reactive
Section 302	: Not Applicable
Section 311/312	: Fire Hazard-No Pressure Hazard-No Immediate Hazard-Yes Delayed Hazard-No
Section 313	: This material contains 2-(2-Ethoxyethoxy)ethyl Acetate (listed as Glycol ethers), 99%, (CAS# 112-15-2) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act	: CAS# 112-15-2 (listed as Glycol ethers) is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:	: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
State regulations	: Pennsylvania RTK 2-(2-Ethoxyethoxy)ethyl acetate: (environmental hazard, generic environmental hazard) New Jersey 2-(2-Ethoxyethoxy)ethyl acetate California prop. 65: No products were found.
Canada - DSL/NDSL	: CAS# 112-15-2 is listed on Canada's DSL List.
Canada - WHMIS	: Not available
Canadian Ingredient Disclosure List	: CAS# 112-15-2 is not listed on the Canadian Ingredient Disclosure List.
Others	: Please refer to any other federal, state and local regulations.

Material 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 dose 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	2007/12/20	First issue
1.1	2009/09/02	Revised: Section11.Toxicological Information