

# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1. Identification of the substance or preparation

Product Name : F-200/LF-200 Cleaning Solution

Product Code : SPC-0568/0569

### 1.2. Use of the substance/preparation

General Use : For ink jet

Product Description : Solvent liquid

### 1.3. Company/undertaking identification

#### MANUFACTURER

Company Name : Mimaki Engineering Co., Ltd

Address : 2182-3 Otsu, Shigeno, Tomi-shi, Nagano 389-0512 Japan

Telephone No. : +81-268-64-2413

Charge post : Inks and Media Division

Person in charge : Isao Tabayashi

E-mail address : tabayashi@mimaki.jp

#### IMPORTER/DISTRIBUTOR ESTABLISHED IN EU

Company Name : MIMAKI EUROPE B.V.

Address : Joan Muyskenweg 42-44, 1099CK Amsterdam

Telephone No. : +31-20-4627-640

Person in charge : Sakae Sagane

### 1.4. Emergency telephone

EMERGENCY : Mimaki Engineering Co., Ltd +81-268-64-2413

TELEPHONE : National Vaccine Information Center (NVIC)

NUMBER : +31-30-274888

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

: Appearance

clear, colorless liquid

Caution!

May cause eye and skin irritation.

May cause respiratory and digestive tract irritation.

This product is classified as 'Irritant'.



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## POTENTIAL HEALTH EFFECTS

- Inhalation : R37 Irritating to respiratory system.
- Eye : R36 Irritating to eyes.
- Skin : R38 Irritating to skin.
- Ingestion : May cause irritation of the digestive tract.
- Cancer-causing : No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

## POTENTIAL ENVIROMENTAL EFFECTS

- : No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Chemical Name	Wt%	CAS No.	EINECS No.	Symbol letters	Risk Phrase	Chemical Formula
1	2-(2-ethoxyethoxy)ethyl acetate	100	112-15-2	203-940-1	Xi	19,36/37/38	C8H16O4

### 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** : 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** : 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.

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## 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 : Immediately contact emergency personnel.

Precautions 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.

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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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Exposure limit values

None listed.

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## 8.2. Exposure controls

### 8.2.1. 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.

### 8.2.2. Environmental exposure controls

: Not available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General information

Appearance - Physical state : liquid  
- Colour : clear, colorless  
Odour : acetic odor

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## 9.2. Important health, safety and environmental information

pH	: Not available
Boiling Point / Boiling Range	: 218.5 deg C (425.3 deg F)
Melting Point / Merging 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)

## 10. STABILITY AND REACTIVITY

CONDITONS TO AVOID	: Incompatible materials, ignition sources, excess heat, strong oxidants.
STABILITY	: Stable under normal temperatures and pressures.
MATERIALS TO AVOID	: Strong oxidizing agents.
HAZARDOUS 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.

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### 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.

#### RESULTS OF PBT ASSESSMENT

: 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. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Comply with all EU, national and local regulations.

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

### 14. TRANSPORT INFORMATIONS

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.

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## 15. REGULATORY INFORMATION

This product is classified as follows and labeled accordingly.

Symbol:



Xi Irritant

Risk Phrase:

R19 May form explosive peroxides.

R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Advise:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

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

## 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	2007/12/20	First issue
1.1	2009/09/02	Revised: Section 11. TOXICOLOGICAL INFORMATION