

# Material Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Fixer WF-F  
 General Use: May be used for printing ink.  
 Product Description: Ethylene-Urea resin.  
 MSDS Number: US-331

### MANUFACTURER

Company Name: Matsui Shikiso Chemical Co., Ltd.  
 Address: 64 Kamikazansakuradani-cho, Yamashina-ku, Kyoto 607-8466, JAPAN  
 Telephone No.: +81 (75) 594-5612

### AGENCY

Matsui International Co., Inc.  
 Address: 1501 West 178th Street, Gardena, CA 90248, U.S.A.  
 Telephone No.: (310) 767-7812

EMERGENCY TELEPHONE NUMBER: +81 (75) 594-5612 / (310) 767-7812

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Component(s)	CAS #	Approx. %
A	Hardening agent of ethyleneurea compounds	7417-99-4	15
B	Ethyleneimine	151-56-4	several ppm
C	Non-hazardous and other ingredients below reportable levels	N/A	Balance

### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

This product is not considered to be hazardous under OSHA's Hazard Communication Standard.

## 3. HAZARDS IDENTIFICATION

### HMIS Ratings

Health: 1  
 Flammability: 0  
 Reactivity: 1  
 Protection: G

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

### EMERGENCY OVERVIEW:

May causes toxic effect because this product contains a small amount of ethyleneimine.

### POTENTIAL HEALTH EFFECTS

#### Inhalation:

Steam inhalation may cause toxic effect because this product contains a minute amount of ethyleneimine.

Eye: Product may cause irritation.

Skin: Skin contact may cause eczematous dermatitis.

#### Ingestion:

Product may cause toxic effect because this product contains a minute amount of ethyleneimine.

#### Chronic:

Not available.

**Carcinogenicity**

Ethyleneimine is possibly carcinogenic to humans. Repeated or prolonged exposure increases the risk.

**POTENTIAL ENVIRONMENTAL EFFECTS:**

Not available.

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**4. FIRST AID MEASURES**

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**INHALATION:**

If inhaled, remove to fresh air immediately. Seek medical attention immediately.

**EYE:** Immediately flush eyes with water for at least 15 minutes occasionally lifting lower and upper lids, until no evidence of chemical remains. Seek medical attention.

**SKIN:** Remove contaminated clothes and shoes. Immediately wash with mild soap and water. Seek medical attention as needed.

**INGESTION:**

Rinse mouth thoroughly with water, or drink water or milk. Seek medical attention immediately.

**PROTECTION TO FIRST-AIDERS:**

Wear personal protective clothing and equipment.

**NOTE TO PHYSICIAN:**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**FLAMMABLE PROPERTIES**

Hazardous Combustion Products:	Not available.
Flash Point:	Not available.
Lower Flammable Limit:	Not available.
Upper Flammable Limit:	Not available.
Autoignition:	Not available.
Conditions of Flammability:	Requires this product be dry.
Explosion Data	
Impact Sensitivity:	Not sensitive to mechanical impact.
Static Discharge:	Not sensitive to static discharge.

**EXTINGUISHING MEDIA:**

Use water, dry chemical, or foam.

(This product is not combustible under normal conditions due to its aqueous property.)

**FIRE FIGHTING INSTRUCTIONS:**

In case of fire, wear respirator. Separate products from fire source because this product may release ethyleneimine.

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## 6. ACCIDENTAL RELEASE MEASURES

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### LAND SPILL:

Avoid contact with skin and eyes. Wear protective gloves and goggles. Respiratory protection is worn in an ill-ventilated area. Ventilate area.

For small spill, absorb with dry sand, soil, saw dust or rag, and collect into container for disposal.

Wipe the remaining up with rag.

For large spill, dike with soil, blankets or sandbags to prevent from contaminating soil and collect into container with shovel or vacuum.

### WATER SPILL:

Wear suitable personal protective equipment as needed. Avoid releasing spilled material into rivers and/or lakes. If material is released to public water, advice local authority.

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## 7. HANDLING AND STORAGE

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### HANDLING:

Wear suitable protective equipment and clothing as needed to prevent the material from contacting skin and eyes. Use only in well-ventilated area. Do not breathe vapor or mist.

Keep container tightly closed after each use.

### STORAGE:

Store in a cool and dark place away from direct sunlight. Avoid humidity, high temperature, and freezing. Keep container airtight.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### EXPOSURE LIMIT VALUES:

Ethyleneimine	ACGIH – TWA	0.5 ppm
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### EXPOSURE CONTROLS

#### Occupational Exposure Controls

##### Engineering Controls:

Local exhaust ventilation and general ventilation is necessary during indoor operation.

##### Personal Protection

##### Respiratory Protection:

Wear chemical-cartridge respirator.

##### Hand Protection:

Wear rubber or plastic gloves.

##### Eye Protection:

Wear safety glasses or goggles.

##### Skin Protection:

Wear long pants, long sleeves, and boots when applicable.

##### Environmental Exposure Controls:

Not available.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	White viscous liquid.
Odor:	Slight odor.
pH:	Not available.
Boiling Point:	Approx. 100°C
Melting Point:	Approx. 0°C
Decomposition Temperature:	Not available.
Flash Point:	Not available.
Auto-Ignition Temperature:	Not available.

Flammability:	If this product is dry, it may be flammable.
Explosive Properties:	Not applicable.
Oxidizing Properties:	Not applicable.
Vapor Pressure:	Not available.
Specific Gravity (water = 1):	1.1
Solubility	
Water:	Miscible.
Partition Coefficient (n-octanol/water):	Not available.
Viscosity:	Not available.
Vapor Density:	Not available.

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## 10. STABILITY AND REACTIVITY

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CONDITIONS TO AVOID:	Heating. Low pH.
STABILITY:	Stable under recommended conditions of storage and handling.
MATERIALS TO AVOID:	Acid substance.
HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:	
	This product may be decomposed by heating and release ethyleneimine. Polymerization reaction with acid substance generates heat.

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## 11. TOXICOLOGICAL INFORMATION

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Acute Toxicity:	Acute oral toxicity LD <sub>50</sub> : > 442 mg/kg (mouse) Acute dermal toxicity LD <sub>50</sub> : > 2,000 mg/kg (rat)
Eye Irritation:	Product may cause irritation.
Skin Irritation:	Skin contact may cause eczematous dermatitis.
Sensitization:	Not available.
Repeated Dose Toxicity:	Not available.
Chronic Toxicity:	Not available.
Mutagenicity:	Mutagenicity is positive (microbial testing).
Carcinogenicity:	Ethyleneimine is possibly carcinogenic to humans. Repeated or prolonged exposure increases the risk.
Reproductive and Developmental Toxicity:	Not available.

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## 12. ECOLOGICAL INFORMATION

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ECOTOXICITY:	Not available.
MOBILITY:	Not available.
PERSISTENCE AND BIODEGRADABILITY:	Not available.
BIOACCUMULATIVE POTENTIAL:	Not available.
OTHER ADVERSE EFFECTS:	Not available.

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## 13. DISPOSAL INFORMATION

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Comply with all federal, state and local regulations.

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

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#### 14. TRANSPORT INFORMATION

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##### US DEPARTMENT OF TRANSPORTATION (DOT)

Hazardous Materials: Not applicable.  
 Hazardous Materials Description and Proper Shipping Name:  
 Not applicable.  
 Hazard Class or Division: Not applicable.  
 Identification Number: Not applicable.  
 Packing Group: Not applicable.  
 Label(s) Required: Not applicable.

##### SEA TRANSPORT

###### IMDG

Class: Not applicable.  
 Packing Group (PG): Not applicable.  
 UN Number: Not applicable.  
 Proper Shipping Name: Not applicable.  
 Marine Pollutant: Not applicable.

##### AIR TRANSPORT

###### ICAO/IATA

Class: Not applicable.  
 Packing Group (PG): Not applicable.  
 UN Number: Not applicable.  
 Proper Shipping Name: Not applicable.

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#### 15. REGULATORY INFORMATION

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##### OSHA STATUS:

This product is not considered to be hazardous under 29 CFR 1910.1200.

##### TSCA STATUS:

All components on TSCA INVENTORY.

##### CERCLA REPORTABLE QUANTITY (40 CFR 117, 302):

Not applicable.

##### SARA TITLE III

Section 302 (40 CFR 355) – Extremely hazardous substance:

Not applicable.

Section 311/312 (40 CFR 370) – Hazard categories:

Not applicable.

Section 313 (40 CFR 372) – Toxic chemical:

Not applicable.

##### CONEG – Typical Metals present in ppm:

Cadmium (Cd)	N
Hexavalent Chromium (Cr(VI))	N
Lead (Pb)	N
Mercury (Hg)	N

ENCS (Japan): Components listed.

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

For specific questions please call to Matsui International Co., Inc. USA 3107677812.

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## 16. OTHER

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### ABBREVIATIONS

OSHA: The Occupational Safety and Health Administration

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists, Inc.

IMDG: International Maritime Dangerous Goods

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

TSCA: Toxic Substances Control Act

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980

SARA: Superfund Amendments and Reauthorization Act of 1986

CONEG: the Coalition of Northeastern Governors

ENCS: Existing and New Chemical Substances

New and updated MSDS are presented in the ANSI Z400.1-1998 Sixteen-section format. All available information is included in systematic update.

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