

## Safety Data Sheets

### 1. Identification

Product Name	: DD400 Red
Order No.	: DD400-R-2L
General Use	: Ink jet printing ink
Product Description	: Disperse Dye Ink
SDS Number	: 037-W400710
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.	: +1-678-730-0170
Emergency Telephone No.	: +81-268-64-2281

### 2. Hazards Identification

#### [GHS Classification]

#### Physical Hazards

Flammable Liquids	: Not classified
Pyrophoric Liquids	: Not classified
Pyrophoric Solids	: Not classified
Self-heating Substances and Mixtures	: Not classified
Oxidizing Liquids	: Not classified
Corrosive to Metals	: Not classified

#### 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	: Not classified
Germ Cell Mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Toxic to Reproduction	: Category 1B
Specific Target Organ Toxicity (Single Exposure)	: Category 1(central nervous system, kidneys, nervous system, heart, respiratory system.)
Specific Target Organ Toxicity (Repeated Exposure)	: Category 1(central nervous system, kidneys, nervous system, heart, respiratory system.)
Aspiration Hazard	: Not classified

The above list does not include category being non-classifiable or not-applicable.

### [GHS Label Elements]

Symbol



Signal Word

Danger

Hazard Statements

H319 Causes serious eye irritation

H360 May damage fertility or the unborn child

H370 Causes damage to central nervous system, kidneys, nervous system, heart, and respiratory system

H372 Causes damage to central nervous system, kidneys, nervous system, heart, and respiratory system 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.

P260 Do not breathe gas/mist.

P264 Wash hands and eyes thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

[Response]

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+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P314 Get medical advice/attention if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

[Storage]

P405 Store locked up.

[Disposal]

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

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### 3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Disperse dye	1-10	Trade Secret
2	Dispersant	1-10	Trade Secret
3	Ethylene glycol	25-35	107-21-1
4	Humectant	15-25	Trade Secret
5	Water	35-45	7732-18-5
6	Additives	<10	Trade Secret

### 4. First Aid Measures

Inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.
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	: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.
Ingestion	: If swallowed, get medical attention.
Indication of Immediate Medical Attention and Special Treatment Needed, If Needed	: Treat symptomatically and supportively.

### 5. Fire Fighting Measures

Flammable Properties	: Not Flammable
Extinguishing Media	: carbon dioxide, regular dry chemical, water spray, alcohol resistant foam,
Unsuitable Extinguishing Media	: None
Special Hazards Arising from the Chemical	: Negligible fire hazard.

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Hazardous Combustion Products	: oxides of carbon
Fire Fighting Measures	: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Avoid inhalation of material or combustion by-products.
Special Protective Equipment and Precautions for Firefighters	: Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

### 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	: Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.
Methods and Materials for Containment and Cleaning Up	: Eliminate all ignition sources if safe to do so. Stop leak if possible without personal risk. Reduce vapors with water spray. <b>Small spills:</b> Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. <b>Large spills:</b> Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

### 7. Handling and Storage

Precautions for Safe 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. Do not breathe gas/mist. Wash hands and eyes thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
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Conditions for Safe Storage, including any Incompatibilities : Store and handle in accordance with all current regulations and standards. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep separated from incompatible substances.

### 8. Exposure Controls / Personal Protection

Exposure Limit Values : **Ethylene glycol (107-21-1)**  
OSHA PEL: 50ppm Ceiling; 125mg/m<sup>3</sup> Ceiling  
ACGIH TLV-C: 100 mg/m<sup>3</sup> Ceiling (aerosol only)  
NIOSH: 50ppm Ceiling  
Mexico 100 mg/m<sup>3</sup> Ceiling (aerosol)

#### Exposure Controls

##### Occupational Exposure Controls

Appropriate : Provide local exhaust or process enclosure ventilation system.

Engineering Controls Shower, hand wash, eyewash equipment.

##### Individual Protection Measures, such as Personal Protective Equipment

Respiratory Protection : Wear specific respirators appropriate for your use.



Glove : Wear appropriate chemical resistant gloves.

##### Recommendations



Eye /Face Protection : Wear splash resistant safety goggles with a faceshield.



Skin Protection : Wear appropriate chemical resistant clothing.

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Environmental Exposure Controls

: Not Available

### 9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: Brown
Odor		: slight odor
pH		: 6-9
Boiling Point / Boiling Range		: Not Available
Melting Point / Melting Range		: Not Available
Flash Point		: Not flammable
Relative Density		: 1.0-1.5
Water Solubility		: Soluble
Viscosity		: 2-10 mPas (25 ° C)

### 10. Stability and Reactivity

Chemical Stability	: Stable under normal conditions of use.
Conditions to Avoid	: Avoid high temperature. Avoid contact with incompatible materials.
Incompatible Materials	: strong acids, strong bases
Hazardous	: oxides of carbon
Decomposition	

### 11. Toxicological Information

Acute Toxicity : The component(s) of this material have been reviewed in various sources and the following selected endpoints are published:

**Ethylene glycol (107-21-1)**

Oral LD50 Rat 4700 mg/kg; Dermal LD50 Rabbit 10600mg/kg

Skin Corrosion / Irritation : mild irritation (GHS Classification : Not classified)

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Eye Damage / Irritation	: serious eye irritation (GHS Classification : Category 2)
Toxic to Reproduction	: may damage fertility or the unborn child (GHS Classification : Category 1B)
Carcinogenicity	: (GHS Classification : Not classified) Component Carcinogenicity <b>Ethylene glycol (107-21-1)</b> ACGIH: A4 - Not Classifiable as a Human Carcinogen
Specific Target Organ Toxicity (Single Exposure)	: causes damage to central nervous system, kidneys, nervous system, heart, and respiratory system (GHS Classification : Category 1)
Specific Target Organ Toxicity (Repeated Exposure)	: Causes damage to central nervous system, kidneys, nervous system, heart, and respiratory system through prolonged or repeated exposure (GHS Classification : Category 1)

### 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	: <b>Ethylene glycol (107-21-1)</b> Fish: 96 Hr LC50 Oncorhynchus mykiss: 41000 mg/L; 96 Hr LC50 Oncorhynchus mykiss: 14 - 18 mL/L [static]; 96 Hr LC50 Lepomis macrochirus: 27540 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 40761 mg/L [static]; 96 Hr LC50 Pimephales promelas: 40000 - 60000 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 16000 mg/L [static] Algae: 96 Hr EC50 Pseudokirchneriella subcapitata: 6500 - 13000 mg/L Invertebrate: 48 Hr EC50 Daphnia magna: 46300 mg/L
Persistence and Degradability	: No information available for the product.
Bioaccumulative Potential	: No information available for the product.
Mobility	: No information available for the product.
Other Adverse Effects	: No additional information is available.

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### 13. Disposal Considerations

- Disposal Methods : Comply with all USA, national and local regulations.  
Do not dump this product into sewers, on the ground or into any body of water.
- Disposal of Contaminated Packaging : Empty containers may contain product residue. Dispose in accordance with all applicable regulations.

### 14. Transport Information

- Check a thing without a leak in a container.  
 Perform prevention of collapse of cargo surely.
- UN Number : Not regulated  
 Class : Not regulated  
 Packing Group (PG) : Not regulated  
 Proper Shipping Name : Not regulated

### 15. Regulatory Information

- U.S. Federal Regulations : This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

**Ethylene glycol (107-21-1)**

SARA 313: 1.0 % de minimis concentration

CERCLA: 5000 lb final RQ; 2270 kg final RQ

- U.S. State Regulations : The following components appear on one or more of the following state hazardous substances lists

Component	CA	MA	MN	NJ	PA
Ethylene glycol (CAS No. 107-21-1)	Yes	Yes	Yes	Yes	Yes



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California Proposition

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: **WARNING:**

This product can expose you to chemicals including Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Canadian WHMIS

Ingredient Disclosure

List (IDL)

: Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL.

**Ethylene glycol (107-21-1) 1 %**

### 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.