

## Safety Data Sheets

### 1. Identification

Product Name	: Reactive dye ink MLRC500 Red
Order No.	: MLR50-R-BJ
General Use	: Ink jet printing ink
Product Description	: Ink jet printing ink
SDS Number	: 037-W472635
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 NE, suite A, Suwanee, Georgia 30024, U.S.A.
Telephone No.	: +1-678-730-0170
Emergency Telephone No.	: +1 866 928 0789 (within United States only) +1 215 207 0061

### 2. Hazards Identification

#### [HCS Classification]

##### Physical Hazards

Flammable Liquids : Not classified

##### Health Hazards

Acute Toxicity – Oral : Category4

Skin Corrosion / Irritation : Category2

Eye Damage / Irritation : Category2

Sensitization – Skin : Category1

Specific Target Organ Toxicity : Category3 (respiratory irritation)

(Single Exposure)

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

#### [Label Elements]

##### Symbol



## Safety Data Sheets

### Signal Word

Warning

### Hazard Statements

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.

### Precautionary Statements

#### [Prevention]

- P261 - Avoid breathing gas/mist.
- P264 - Wash hands and eyes thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

#### [Response]

- P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 - Rinse mouth.
- P332+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.

#### [Storage]

- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.

#### [Disposal]

- P501 - Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

### 3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Water	40-50	7732-18-5
2	ADDITIVE E	10-20	Trade Secret
3	Reactive dye	10-20	72829-25-5
4	Glycerol	1-10	56-81-5
5	Other	1-10	Trade Secret

## Safety Data Sheets

### 4. First Aid Measures

Inhalation	: Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist.
Eye Contact	: Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin Contact	: Remove contaminated clothing. Seek medical attention if irritation or symptoms persist. Wash off immediately with plenty of soap and water.
Ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Drink 1 to 2 glasses of water. If you feel unwell, seek medical advice (show the label where possible).
General information	: See section 16 for further information.

### 5. Fire Fighting Measures

Extinguishing Media	: Use appropriate water spray, foam, powder, carbon dioxide(CO2).
Advice for firefighters	: Wear suitable respiratory equipment when necessary.

### 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	: Wear suitable protective clothing, gloves and eye/face protection.
Environmental precautions	: Avoid release to the environment.
Methods and material for containment and cleaning up	: For large spills: Clean spillage area thoroughly with plenty of water. For large spills: Water jet. Avoid raising dust. Flush down the drain with plenty of water.

### 7. Handling and Storage

Precautions for Safe Handling	: Occupational exposure controls. Avoid contact with eyes and skin.
-------------------------------	--

## Safety Data Sheets

Conditions for Safe Storage, including any Incompatibilities : Store in a cool, dry area. Keep containers tightly closed. Keep away from water.

### 8. Exposure Controls / Personal Protection

#### Exposure Limit Values

Glycerol (Glycerol, mist)	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m <sup>3</sup> : 10
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m <sup>3</sup> : -

#### Exposure controls

Individual protection measures : Wear suitable protective equipment.

Respiratory protection : Wear suitable respiratory equipment when necessary.

Occupational exposure controls : Wear suitable protective equipment.



### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

Appearance	- Physical State	: liquid
	- Color	: Red
Odor		: Characteristic
pH		: No data available
Boiling Point		: > 100 °C
Melting Point		: No data available
Freezing Point		: No data available
Flash Point		: > 110 °C (BS EN 1234/1960)
Auto ignition temperature		: No data available
Explosive		: No data available
Oxidizing		: No data available
Flammability Limits		: No data available
Vapour Flammability		: No data available
Vapor Pressure		: No data available

## Safety Data Sheets

Relative Density	: No data available
Fat Solubility	: No data available
Partition Coefficient (n-octanol / Water)	: No data available
Vapour density	: No data available
Viscosity	: < 10 mPas (Cone & Plate)
Evaporation Rate	: No data available
Other information	
Conductivity	: No data available
Gas group	: No data available
Surface tension	: No data available

### 10. Stability and Reactivity

Reactivity	: Stable under normal conditions.
Chemical Stability	: Stable under normal conditions.
Possibility of Hazardous Reactions	: Avoid contact with: Reducing agents, Alkaline solution.
Conditions to Avoid	: None. Stable under normal conditions.
Incompatible Materials	: Stable under normal conditions.

### 11. Toxicological Information

Toxicological Information	: No data available
Information on toxicological effects	
Sensitization	: May cause sensitisation by skin contact.
Respiratory or skin sensitisation	: May cause sensitisation by skin contact.
Germ cell mutagenicity	: No mutagenic effects reported.
Repeated or prolonged exposure	: See section 16 for further information.

### 12. Ecological Information

Handling is noted because it might influence the environment when leaking and abandoning it.

## Safety Data Sheets

Especially, note that the product doesn't flow directly to ground, the river, and the drain ditch.

Ecotoxicity	: Not applicable. Aquatic toxicity against Bacteria, IC50/3hr > 10 mg/g (OECD 209). Algae EC50/72h = OECD 201, > 1 mg/L. Daphnia EC50/48h = OECD 202, > 100 mg/L. Brachydanio Rerio LC50/96h = OECD 203, > 200 mg/L.
BOD5	: No data is available on this product.
COD	: No data is available on this product.
Metal content	: Metal content under the ETAD recommended limits. Chromium (Cr) None. Cobalt (Co) None. Copper (Cu) None.
Phosphorus content	: < 0.1%.
Biodegradability	: > 85 % tested by OECD 302 B.
AOX	: < 1.0%.

### 13. Disposal Considerations

General information	: Dispose of in compliance with all local and national regulations.
Disposal methods	: Can be incinerated if in compliance with local and national regulations. Can be sent to landfill if in compliance with local and national regulations.
Disposal of packaging	: Can be incinerated if in compliance with local and national regulations. Empty containers can be sent to landfill after cleaning, if in compliance with local and national regulations.

### 14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

ADR/RID	: The product is not classified as dangerous for carriage.
IMDG	: The product is not classified as dangerous for carriage.
IATA	: The product is not classified as dangerous for carriage.

## Safety Data Sheets

### 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation by : No data available.  
Occupation Safety and Health Acts
- Regulation by Toxic : No data available.  
Chemicals Control Act
- Regulation by Safety : No data available.  
Control of Dangerous Substances Act
- Regulation by Wastes : No data available.  
Control Act
- Persistent Organic : No data available.  
Pollutants Control Act
- Japanese regulatory : No data is available on this product.  
information
- American Management : No data available.  
Information (OSHA Regulations)
- American Management : No data available.  
Information (CERCLA Regulations)
- American Management : No data available.  
Information (EPCRA 302 Regulations)
- American Management : No data available.  
Information (EPCRA 304 Regulations)
- American Management : No data available.  
Information (Material by Montreal Protocol)
- American Management : No data available.  
Information (Material by Rotterdam Convention)

## Safety Data Sheets

### 16. Other Information

#### Data sources

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>) (Description(state))

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>) (Colour)

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>) (Odour)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Melting Point/Freezing Point)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Initial Boiling Point & Boiling Point Range)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Flash Point)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Upper / Lower Flammability or Explosive Limits)

National Institute of Technology and Evaluation(NITE)  
([http://www.safe.nite.go.jp/ghs/h18\\_bunrui.html](http://www.safe.nite.go.jp/ghs/h18_bunrui.html)) (Vapor Pressure)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)  
(Solubility)

International Programme on Chemical Safety(IPCS INCHEM)(<http://www.inchem.org/>) (Vapor Density)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Specific Gravity)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)  
(n-octanol / water partition coefficient)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)  
(Autoignition Temperature)

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>) (Molecular Weight)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Oral)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Dermal)  
OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Skin Corrosion or Irritation)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Serious Eye)



## Safety Data Sheets

Damage or Irritation)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Skin Sensitization)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Skin Sensitization)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Mutagenicity)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Germ Cell Mutagenicity)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Reproductive Toxicity)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Reproductive Toxicity)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Specific Target Organ Toxicity (Single Exposure))

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Specific Target Organ Toxicity (Single Exposure))

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Specific Target Organ Toxicity (Repeated Exposure))

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Specific Target Organ Toxicity (Repeated Exposure))

SIDS (Fish)

SIDS (Shellfish)

SIDS (Algae)

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>) (Persistence)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>) (Biodegradability).

### Further information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.