

## Safety Data Sheets

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

Dye Sublimation Ink MLSb520 Yellow D

**Product Description**

MLS52-YD-BJ

**Product Use**

INK JET ink

**Restrictions on Use**

None known.

**Manufacturer Information**

Mimaki Engineering Co., Ltd

2182-3 Shigeno-otsu, Tomi-shi, Nagano

389-0512 Japan

Telephone number: +81-268-64-2413

**Importer / Distributor Information**

MIMAKI AUSTRALIA PTY LTD.

Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia

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**Emergency telephone number**

+61 2 8014 4558 (within Australia only)

18000 74234 (within Australia only)

+65 3158 1074

### Section 2 - HAZARDS IDENTIFICATION

Classified to Globally Harmonised System of Classification and Labelling of Chemicals, Third revised edition, published by the United Nations as modified under Schedule 6 of the Work Health and Safety Regulation.

**GHS Classification**

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Skin Sensitization - Category 1A

**GHS Label Elements****Symbol(s)****Signal Word**

Warning

**Hazard Statement(s)**

Causes skin irritation.

Causes serious eye irritation.

May cause allergic skin reaction.

**Precautionary Statement(s)****Prevention**

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

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

**Response**



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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

### Storage

None needed according to classification criteria.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Potential Environmental Effects

No information available for the product.

### Other Hazards Which Do Not Result in Classification

None known.

### Main Symptoms and Emergency Overview

Causes skin irritation. Causes eye irritation. May cause an allergic skin reaction.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	55-65
56-81-5	Glycerol	5-15
Not Available	Glycols	15-25
Not Available	Glycerols	1-10
Not Available	Dye	1-10
Not Available	Other	<10
Not Available	Preservative	<0.2

## Section 4 - FIRST AID MEASURES

### Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

### Skin

Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs: Get medical advice/attention. Contaminated clothing should be removed and laundered before reuse.

### Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

### Ingestion

If swallowed, get medical attention.

### Most Important Symptoms/Effects

#### Symptoms: Immediate

skin irritation, eye irritation, allergic skin reaction

#### Symptoms: Delayed

allergic skin reaction

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

## Section 5 - FIRE FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

carbon dioxide, regular dry chemical, water spray, alcohol resistant foam

#### Unsuitable Extinguishing Media



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Do not scatter spilled material with high-pressure water streams.

### Special Hazards Arising from the Chemical

Negligible fire hazard. Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

### Hazardous Combustion Products

oxides of carbon, acrolein

### Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

### 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.

### Hazchem/Emergency Action Code

No data available

## Section 6 - ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

### Environmental Precautions

Avoid release to the environment.

### Methods and Materials for Containment and Cleaning Up

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Keep unnecessary people away, isolate hazard area and deny entry. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Stay upwind and keep out of low areas.

## Section 7 - HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wear suitable protective gloves and eye/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

### Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria.

Further information on storage conditions: Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep container tightly closed. Keep cool. Keep separated from incompatible substances.

### Incompatible Materials

acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component Exposure Limits

Glycols	Not Available
Safe Work Australia.	150 ppm TWA total vapour and particulates ; 474 mg/m <sup>3</sup> TWA total vapour and particulates ; 10 mg/m <sup>3</sup> TWA particulates only
Glycerol	56-81-5
Safe Work Australia.	10 mg/m <sup>3</sup> TWA (containing no asbestos and <1% crystalline silica ) inhalable dust, mist

### EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

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

#### Eye/face protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

Wear appropriate chemical resistant clothing.

#### Respiratory Protection

Consult with a health and safety professional for specific respirators appropriate for your use.

#### Glove Recommendations

Wear appropriate chemical resistant gloves.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	yellow liquid	<b>Physical State</b>	liquid
<b>Odor</b>	characteristic odor	<b>Color</b>	yellow
<b>Odor Threshold</b>	Not available	<b>pH</b>	7 - 9
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	Not available
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	Not available	<b>Flash Point</b>	(None )
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	Not available
<b>Water Solubility</b>	(Easily soluble )	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	4 - 6 mPa-s (25 °C )	<b>Solubility (Other)</b>	Not available
<b>Density</b>	1 - 1.2 g/cm <sup>3</sup>	<b>Physical Form</b>	liquid
<b>Molecular Weight</b>	Not available		

### Section 10 - STABILITY AND REACTIVITY

#### Reactivity

No reactivity hazard is expected.

#### Chemical Stability

Stable under normal conditions of use.

#### Possibility of Hazardous Reactions

Will not polymerize.

#### Conditions to Avoid

Avoid flames, sparks, and other sources of ignition. Containers may rupture or explode if exposed to heat. Avoid contact with incompatible materials.

#### Incompatible Materials

acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

#### Hazardous decomposition products

oxides of carbon, acrolein

### Section 11 - TOXICOLOGICAL INFORMATION

#### Information on Likely Routes of Exposure

##### Inhalation

irritation, difficulty breathing, nausea, vomiting

##### Skin Contact

irritation, allergic skin reaction

##### Eye Contact

eye irritation



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## Ingestion

nausea, vomiting, diarrhea, headache, dizziness, drowsiness, stomach pain

## Acute and Chronic Toxicity

### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

#### Glycols (Not Available)

Oral LD50 Rat 20 g/kg

Dermal LD50 Rabbit 20800 mg/kg

#### Glycerol (56-81-5)

Oral LD50 Rat 12600 mg/kg

Dermal LD50 Rabbit >10 g/kg

Inhalation LC50 Rat >570 mg/m<sup>3</sup> 1 h

## Immediate Effects

skin irritation, eye irritation, allergic skin reaction

## Delayed Effects

allergic skin reaction

## Irritation/Corrosivity Data

skin irritation, eye irritation

## Respiratory Sensitization

No information available for the product.

## Dermal Sensitization

May cause an allergic skin reaction.

## Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

## Germ Cell Mutagenicity

No information available for the product.

## Reproductive Toxicity

No information available for the product.

## Specific Target Organ Toxicity - Single Exposure

No target organs identified.

## Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

## Aspiration hazard

Not expected to be an aspiration hazard.

## Medical Conditions Aggravated by Exposure

kidney disorders, skin disorders and allergies

## Section 12 - ECOLOGICAL INFORMATION

### Component Analysis - Aquatic Toxicity

Glycols	Not Available
Fish:	LC50 96 h Oncorhynchus mykiss 51600 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 41 - 47 mL/L [static ]; LC50 96 h Pimephales promelas 51400 mg/L [static ]; LC50 96 h Pimephales promelas 710 mg/L
Algae:	EC50 96 h Pseudokirchneriella subcapitata 19000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L [Static ] EPA
Glycerol	56-81-5
Fish:	LC50 96 h Oncorhynchus mykiss 51 - 57 mL/L [static ]

## Persistence and Degradability

No information available for the product.

## Bioaccumulative Potential

No information available for the product.

## Mobility in soil



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No information available for the product.

**Other adverse effects**

No additional information available.

### Section 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods**

Dispose in accordance with all applicable regulations.

### Section 14 - TRANSPORT INFORMATION

**ADG Information:**

No Classification assigned.

**IATA Information:**

No Classification assigned.

**ICAO Information:**

No Classification assigned.

**IMDG Information:**

No Classification assigned.

**Component Marine Pollutants (IMDG)**

Not regulated as dangerous goods.

**Transportation Special Precautions**

No information available for the product.

**Hazchem/Emergency Action Code**

No data available

### Section 15 - REGULATORY INFORMATION

**Australia Regulations****Work Health and Safety Regulations - Prohibited Carcinogens**

No component(s) are listed on the Prohibited Carcinogens list.

**Work Health and Safety Regulations - Restricted Carcinogens**

No component(s) are listed on the Restricted Carcinogens list.

**Work Health and Safety Regulations - Restricted Hazardous Chemicals**

No component(s) are listed on the Restricted Hazardous Chemicals list.

**Australia Work Health and Safety Regulations - Hazardous Chemicals Requiring Health Monitoring**

None of this product's components are on the list.

**Component Analysis - Inventory****Water (7732-18-5)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes

**Glycols (Not Available)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

**Glycerol (56-81-5)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

### Section 16 - OTHER INFORMATION



Product Name: Dye Sublimation Ink MLSb520 Yellow D

SDS No. 037-W522913

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### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL - Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

### Other Information

#### Disclaimer:

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.