



Product Name : Dye Sublimation Ink 51

Light Magenta

MSDS No.031-33W082C

First issue : July 31, 2007

Revised : Jun 16, 2008

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Material Safety Data Sheets

1. Product and Company Identification

Product Name : Dye Sublimation Ink 51 Light Magenta

Product Code : SPC-0493LM

General Use : Ink jet printing ink

Product Description : Sublimation ink

MSDS Number :031-33W082C

Manufacture

Company Name : Mimaki Engineering Co., Ltd

Address : 2182-3 Otsu, Shigeno, 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. : 1-678-730-0100

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

2. Hazards Identification

Emergency Overview : Wear full face shield if splashing hazard exists.

Wear protective clothing.

Allowed uses: hard surface cleaners; textile printing inks.

Use with local exhaust ventilation.

Potential Health Effects : Virtually nontoxic after a single ingestion.

Inhalation : Not available.

Eye Contact : Not available.

Skin Contact : Not available.

Ingestion : Not available.

Carcinogens : No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

HMIS III Rating (scale 0 – 4)

Health = 1

Flammability= 0

Physical hazard = 0

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3. Composition / Information On Ingredients

| No | Chemical Name | Wt% | CAS No. | Chemical Formula |
|----|------------------------------|-------------------------|--------------|---|
| 1 | Water | $\geq 75.0 - \leq 85.0$ | 7732-18-5 | H ₂ O |
| 2 | Polyethylene glycol | $> 1.0 - \leq 10.0$ | 25322-68-3 | (C ₂ H ₄ O) _n H ₂ O |
| 3 | Glicerina-525 | $\geq 5.0 - \leq 15.0$ | 56-81-5 | C ₃ H ₈ O ₃ |
| 4 | Proprietary polymer additive | $\geq 1.0 - \leq 5.0$ | Trade Secret | Trade Secret |

OSHA Hazardous : Not hazardous

Components

(29 CFR 1910.1200)

4. First Aid Measures

Inhalation : Remove the affected individual into fresh air and keep the person calm.

Eye Contact : Wash affected eyes for at least 15 minutes under running water with eyelids held open.

Skin Contact : Wash thoroughly with soap and water.

Ingestion : Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Protection To First-Aiders : Not available

Note To Physician : Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire Fighting Measures

Flammable Properties : Flash point : > 100 degree C (DIN 51758)

Autoignition: > 200 degree C (DIN 51794)

Flammability: does not ignite

Extinguishing Media : water spray, dry extinguishing media, foam

Fire Fighting : Wear a self-contained breathing apparatus in confined areas or

Instructions when exposed to combustion products.

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6. Accidental Release Measures

| | |
|---------------------------|---|
| Personal Precautions | : Use personal protective clothing. |
| Environmental precautions | : Do not discharge into drains/surface waters/groundwater. |
| Cleanup | : Spills should be contained, solidified, and placed in suitable containers for disposal. For small amounts: Pick up with absorbent material(e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with regulations. For large amounts: Pump off product. |

7. Handling And Storage

| | |
|----------|---|
| Handling | : No special measures necessary provided product is used correctly. |
| Storage | : Protect from temperatures below: 0 degree C Protect from temperatures above: 40 degree C |

8. Exposure Controls / Personal Protection

Exposure Controls

Occupational Exposure Controls

Engineering Controls : It is better to place local exhaust equipment.

Components with workplace control parameters
Glicerina-525 OSHA PEL 5mg/m³ Respirable fraction ; PEL 15mg/m³ Total dust
ACGIH TWA value 10mg/m³ Mist

Personal Protection

Respiratory Protection : Wear respiratory protection if ventilation is inadequate. Breathing protection if breathable aerosols/dust are formed.



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Hand Protection : Chemical resistant protective gloves.



Gloves

Eye Protection : Tightly fitting safety goggles(chemical goggles).



Safety Glasses

Skin Protection : To prevent ANY contact, wear impervious clothing such as gloves, apron, boots, or whole body suits made from neoprene, as appropriate.



Protective Apron



Boots



Gloves



Full Suit

Environmental Exposure Controls

: Not available.

9. Physical And Chemical Properties

| | | |
|-------------------------------|------------------|---------------------------------|
| Appearance | - Physical state | : liquid |
| | - Colour | : red |
| Odour | | : product specific |
| pH | | : 7-9 (20 degree C) |
| Boiling Point / Boiling Range | | : approx. 100 degree C |
| Melting Point / Merging Range | | : Not available |
| Flash Point | | : >100 degree C |
| Flammability(solid, gas) | | : does not ignite |
| Vapour Pressure | | : approx. 23mbar (20 degree C) |
| Relative density | | : approx. 1.05g/cm ³ |
| Solubility | | : soluble |
| | | Solvent(s): organic solvents |
| Water solubility | | : dispersible |
| Viscosity | | : 2.5-3.5mPa.s (20 degree C) |
| VOC | | : < 2.5 g/l |

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10. Stability And Reactivity

| | |
|--|---|
| Conditions To Avoid | : Not available. |
| Stability | : No hazardous reactions when stored and handled according to instructions. The product is chemically stable. |
| Materials To Avoid | : Not available. |
| Hazardous Reactions/ Decomposition Products | : No hazardous reactions when stored and handled according to instructions. The product is chemically stable. Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated. |

11. Toxicological Information

| | |
|-----------------|---|
| Acute Toxicity | : Oral: LD50/rat: > 2,000mg/kg |
| Eye Irritation | : Rabbit: non-irritant (OECD Guideline 405) |
| Skin Irritation | : Rabbit: non-irritant (OECD Guideline 404) |
| Sensitization | : Not available. |
| Mutagenicity | : Not applicable. |
| Others | : The product has not been tested. The statements on toxicology have been derived from the properties of the individual components. |

12. Ecological Information

| | |
|----------------------------------|--|
| Ecotoxicity | : Acute and prolonged toxicity to fish: golden orfe/ LC50 (96 h): >100mg/l Toxicity to microorganisms: OECD Guideline 209 bacterium/EC50: >1,000 mg/l Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. |
| Persistence And Degradability | : Not available. |
| Bioaccumulative Potential | : Not available. |



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Other Adverse Effects : Adsorbable organically-bound halogen (AOX): 0%

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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

RCRA: None

14. Transport Information

Not classified as a dangerous good under transport regulations.

(USDOT / IMDG / IATA / ICAO)

15. Regulatory Information

OSHA Status : Not hazardous.

TSCA Status : released / listed

SARA Title III

Section 311/312 : Not hazardous.

(40 CFR 370)

| State regulations | <u>CAS Number</u> | <u>Chemical name</u> | <u>State RTK</u> |
|-------------------|-------------------|----------------------|------------------|
|-------------------|-------------------|----------------------|------------------|

| | | | |
|-----------|---------|---------------|--------|
| State RTK | 56-81-5 | Glicerina-525 | MA, PA |
|-----------|---------|---------------|--------|

Others : This product contains a chemical(s) known to the state of California to cause cancer and birth defects or other reproductive harm.

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.



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Revision history

| Version | Date | Item No. | Content |
|---------|---------------|-------------|-------------------|
| 1.0 | July 31, 2007 | | First issue |
| 2.0 | Oct 19, 2007 | 1 | Change of address |
| 3.0 | Feb 16, 2008 | 3, 8, 9, 15 | Add |
| | | | |