

Safety Data Sheets

1. Identification

| | |
|---|---|
| Product Name | : Dye Sublimation Ink Sb210 Magenta |
| Order No. | : SPC-0700M |
| Ink Ver. | : 1 |
| General Use | : Ink jet printing ink |
| Product Description | : Dye Sublimation Ink |
| SDS Number | : 037-W184789 |
| 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. | : +81-268-64-2281 |

2. Hazards Identification

[HCS Classification]

Physical Hazards

Flammable Liquids : Not classified

Health Hazards

Skin Corrosion / Irritation : Category 2

Eye Damage / Irritation : Category 2

Specific Target Organ Toxicity : Category 1 (Central nervous system, blood system,
(Single Exposure) kidney)

Category 3

Environmental Hazards

Hazardous to the Aquatic : Category 3

Environment - Acute Hazard

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

[HCS Label Elements]

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Symbol



Signal Word

Danger

Hazard Statements

H315 Cause skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H370 Causes damage to organs (Central nervous system, blood system, kidney)

H402 Harmful to aquatic life

Precautionary Statements

[Prevention]

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.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

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

[Response]

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.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P332+P313 If skin irritation 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).

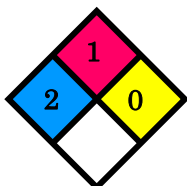
NFPA Rating (scale 0 – 4)

Health = 2

Flammability = 1

Instability = 0

Special =



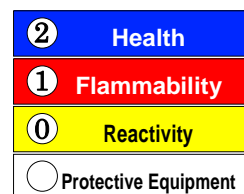
HMIS Rating (scale 0 – 4)

Health = 2

Flammability = 1

Reactivity = 0

Protective Equipment = -



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CANADIAN WHMIS SYMBOLS : D2A, D2B



3. Composition / Information on Ingredients

Mixture

| No | Chemical Name | Wt% | CAS No. |
|----|------------------|-------|--------------|
| 1 | Ethylene glycol | 40-60 | 107-21-1 |
| 2 | Water | 20-50 | 7732-18-5 |
| 3 | Propylene glycol | 1-10 | 57-55-6 |
| 4 | Glycerol | 1-10 | 56-81-5 |
| 5 | Disperse dye | 1-10 | Trade Secret |
| 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 | : 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. |
| Skin Contact | : 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. |
| Ingestion | : If swallowed, get medical attention. Rinse mouth. |
| Most Important Symptoms/Effects | : skin irritation, eye irritation, respiratory irritation, drowsiness and dizziness, central nervous system damage, blood system damage, kidney damage |
| Indication of Immediate Medical Attention and Special Treatment Needed, If Needed | : Treat symptomatically and supportively. |

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5. Fire Fighting Measures

| | |
|---|--|
| Flammable Properties | : Not flammable |
| Extinguishing Media | : water spray, carbon dioxide, dry chemical powder, foam |
| Unsuitable Extinguishing Media | : Do not scatter spilled material with high-pressure water streams. |
| Special Hazards Arising from the Chemical | : Negligible fire hazard. |
| Hazardous Combustion Products | : Smoke, toxic or irritating fumes and particulates. |
| 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. |
| 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. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. |
| Environmental Precautions | : Avoid release to the environment. Collect spillage. |

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7. Handling and Storage

Precautions for Safe Handling : Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, including any Incompatibilities : Store and handle in accordance with all current regulations and standards. Keep container tightly closed. Store in a well-ventilated area. Keep cool, Avoid direct sunlight. Keep separated from incompatible substances.

Incompatible Materials : Strong oxidants, strong bases and strong acids.

8. Exposure Controls / Personal Protection

Exposure Limit Values

| No | Chemical Name | ACGIH TLV | OSHA PEL |
|----|-----------------|---|---|
| 1 | Ethylene glycol | Ceiling: 100 mg/m ³ aerosol only | Ceiling: 50ppm (vacated) Ceiling: 125 mg/m ³ (vacated) |
| 2 | Glycerol | TWA: 10 mg/m ³ mist | TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction |

Component Biological Limit Values : There are no biological limit values for any of this product's components.

Exposure Controls

Occupational Exposure Controls

Appropriate : Provide local exhaust or process enclosure ventilation system.

Engineering Controls : Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

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



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Glove : Wear appropriate chemical resistant gloves.

Recommendations



Gloves

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



Safety
Glasses

Skin Protection : Wear appropriate chemical resistant clothing.



Protective
Apron

9. Physical and Chemical Properties

| | | |
|---|------------------|-----------------------------|
| Appearance | - Physical State | : liquid |
| | - Color | : Magenta |
| Odor | | : Specific |
| Odor Threshold | | : No information available. |
| pH | | : 6-8 |
| Boiling Point / Boiling Range | | : No information available. |
| Melting Point / Melting Range | | : No information available. |
| Decomposition Temperature | | : No information available. |
| Flash Point | | : Not flammable |
| Auto ignition temperature | | : No information available. |
| Flammability Limits in Air | | : No information available. |
| Explosion Limits | | : No information available. |
| Vapor Pressure | | : No data available |
| Specific Gravity | | : 1.0-1.2 (25 degree C) |
| Solubility | | : No information available. |
| Water Solubility | | : Soluble in water |
| Partition Coefficient (n-octanol / Water) | | : No information available. |
| Viscosity | | : 9-11mPa.s (25 degree C) |
| Vapor Density | | : No data available |

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Evaporation Rate : No information available.
VOC : 40-60

10. Stability and Reactivity

Reactivity : No reactivity hazard is expected.
Chemical Stability : Stable under normal conditions of use.
Possibility of Hazardous : Will not polymerize.
Reactions
Conditions to Avoid : Avoid flames, sparks, and other sources of ignition. Avoid contact with incompatible materials.
Incompatible Materials : Strong oxidants, strong bases and strong acids.
Hazardous : Smoke, toxic or irritating fumes and particulates.
Decomposition

11. Toxicological Information

Acute Toxicity : As a product
Oral (rat) : LD50 > 2000mg/kg
Skin (rat or rabbit) : LD50 > 2000mg/kg
Skin Corrosion / Irritation : Cause skin irritation
Eye Damage / Irritation : Causes serious eye irritation
Sensitization – Respiratory : No information available for the product.
Sensitization – Skin : No information available for the product.
Germ Cell Mutagenicity : No information available for the product.
Carcinogenicity : No information available for the product.
Toxic to Reproduction : No information available for the product.
Specific Target Organ Toxicity (single Exposure) : May cause respiratory irritation. May cause drowsiness and dizziness. Causes damage to organs (Central nervous system, blood system, kidney)
Specific Target Organ Toxicity (Repeated Exposure) : No target organs identified.
Aspiration Hazard : Not expected to be an aspiration hazard.

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Medical Conditions : No information available for the product.
Aggravated by Exposure

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 : Harmful to aquatic life
Hazardous to the Aquatic Environment - Acute Hazard, Category 3

Component Analysis - : Ethylene glycol: Fish Rainbow trout LC50 47000µg / L / 96H

Aquatic Toxicity

Persistence and : No information available for the product.

Degradability

Bioaccumulation : No information available for the product.

Mobility : No information available for the product.

Other Toxicity : No information available for the product.

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 : Empty containers may contain product residue. Dispose in
Contaminated accordance with all applicable regulations.

Packaging

14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

US DOT Information : Not regulated as a hazardous material for transport.

TDG Information : Not regulated as dangerous goods for transport.

IATA Information : Not regulated as dangerous goods for transport.

ICAO Information : Not regulated as dangerous goods for transport.

IMDG Information : Not regulated as dangerous goods for transport.

Marine Pollutant : Not regulated as dangerous goods for transport.



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15. Regulatory Information

International Inventories

TSCA : All components are listed on the TSCA Inventory.

DSL : Additives Does not comply

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|-----------------|----------|----------|-------------------------------|
| Ethylene glycol | 107-21-1 | 40-60 | 1.0 |

SARA 311/312 Hazard Categories

Acute Health Hazard : Yes

Chronic Health Hazard : Yes

Fire Hazard : No

Sudden Release of Pressure Hazard : No

Reactive Hazard : No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|-----------------|--------------------------|------------------------------------|--|
| Ethylene glycol | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |

U.S. State Regulations

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California Proposition 65



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.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Illinois | Rhode Island |
|------------------|------------|---------------|--------------|----------|--------------|
| Ethylene glycol | X | X | X | X | X |
| Propylene glycol | X | - | X | - | X |
| Glycerol | X | X | X | - | X |

International Regulations

| Chemical Name | Carcinogen Status | Exposure Limits |
|-----------------|-------------------|--|
| Ethylene glycol | | Mexico: Ceiling= 100 mg/m ³ |

Canada : This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

| Chemical Name | NPRI |
|-----------------|------|
| Ethylene glycol | X |

Legend

NPRI - National Pollutant Release Inventory

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.