Safety Data Sheets

1. Identification

Product Name	: HS ink Light Magenta
Order No.	: SPC-0473Lm-5, SPC-0589Lm-5
General Use	: Ink for ink jet printer
Product Description	: Solvent pigment ink
SDS Number	: 037-S060582
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.	: +1-678-730-0700
Emergency Telephone No.	: +81-268-64-2281

2. Hazards Identification

[GHS Classification]

Physical Hazards

Flammable Liquids	: Category 4

Health Hazards

Acute Toxicity – Oral	: Not classified
Acute Toxicity – Dermal	: Not classified
Skin Corrosion / Irritation	: Category 2
Eye Damage / Irritation	: Category 2
Sensitization – Skin	: Category 1
Germ Cell Mutagenicity	: Category 2
Toxic to Reproduction	: Category 2
Specific Target Organ Toxicity (Single Exposure)	: Category 2 (respiratory system)
Specific Target Organ Toxicity (Repeated Exposure)	: Category 1 (bone marrow, spleen, kidneys, adrenal gland, respiratory system and liver) Category 2 (central nervous system, bone)

Safety Data Sheets

Environmental Hazards

Hazardous to the Aquatic Environment - Acute Hazard : Category 2

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

[GHS Label Elements]

Symbol

Signal Word

Danger

Hazard Statements

H227 Combustible liquid
H315 Cause skin irritation
H317 May cause an allergic skin reaction
H319 Cause serious eye irritation
H341 Suspected of causing genetic defects
H361 Suspected of damaging fertility or the unborn child
H371 May cause damage to respiratory system
H372 Causes damage to bone marrow, spleen, kidneys, adrenal gland, respiratory system and liver through prolonged or repeated exposure
H373 May cause damage to central nervous system, bone through prolonged or repeated exposure
H401 Toxic to aquatic life

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.
P210 Keep away from heat/sparks/open flames/hot surfaces.-No smoking.
P260 Do not breathe gas/mist.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

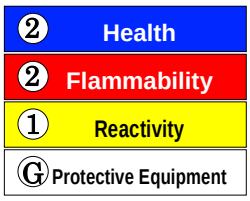
[Response]

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
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 or doctor/physician.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see 4-Response on our website/SDS URL: www.mimaki.co.jp/sds).
P333+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 before reuse.
P370+P378 In case of fire: Use appropriate media for extinction.
[Storage]
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
[Disposal]
P501 Dispose of contents and container in accordance with local, regional, national and international regulation.

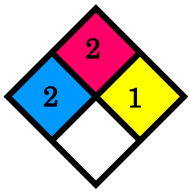
HMIS Rating (scale 0 – 4)

Health = 2
Flammability= 2
Reactivity = 1
Protective Equipment = G



NFPA Rating (scale 0 – 4)

Health = 2
Flammability = 2
Instability = 1
Special = None



3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Quinacridone Magenta	0.1-5	Registered
2	Vinyl chloride / Vinyl acetate copolymer resin	0.1-5	Registered
3	Polyester resin	0.1-5	Registered
4	Dipropylene glycol methyl ether acetate	10-30	88917-22-0
5	Dipropylene glycol dimethyl ether	10-30	111109-77-4
6	3-Methoxybutyl acetate	10-30	4435-53-4
7	N-Methyl-2-pyrrolidone	10-30	872-50-4
8	Cyclohexanone	1-5	108-94-1
9	Additives	0.1-5	Registered

4. First Aid Measures

Inhalation : If inhaled, immediately remove to fresh air and keep warm and calm. If breathing irregularly or not breathing, give artificial respiration and consult a doctor immediately.

Eye Contact : Flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Consult an ophthalmologist immediately.

Safety Data Sheets

Skin Contact	: Wash skin thoroughly with plenty of water. If on clothing, remove immediately contaminated clothing.
Ingestion	: Do not induce vomiting. If swallowed, keep calm and consult a doctor immediately. Keep from swallowing vomit.
Protection To First-Aiders	: Wear tools for appropriate protection. Ventilate. See section 7 and 8.
Indication of Immediate Medical Attention and Special Treatment Needed, If Needed	: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flammable Properties	: Avoid breathing combustion products. Flash point : 65℃ Ignition point : Not available Explosion point : 0.85～15.00vol%
Extinguishing Media	: Foam, carbon dioxide, dry chemical, water spray
Unsuitable Extinguishing Media	: Do not scatter spilled material with high-pressure water streams
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. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.
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. **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.

7. Handling and Storage

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. Keep away from heat/sparks/open flames/hot surfaces.-No smoking. Do not breathe gas/mist. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Storage	: Store and handle in accordance with all current regulations and standards. Keep container tightly closed. Keep cool. Grounding and bonding required. Store locked up. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure Limit Values

No	Chemical Name		TWA	STEL
1	Cyclohexanone (CAS No. 108-94-1)	OSHA PEL	50 ppm	-
		ACGIH TLV	20ppm	50ppm
		NIOSH	25ppm	-

Exposure Controls

Occupational Exposure Controls

Engineering Controls : Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection

Respiratory Protection : Wear protective masks for hazardous materials.

Hand Protection : Wear gloves resistant to organic solvents and chemicals.

Eye Protection : Wear coverall, chemical goggles and face shield when handling.

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

Environmental Exposure Controls

: Not available

Safety Data Sheets

9. Physical and Chemical Properties

Appearance	- Physical State	: liquid (25℃)
	- Color	: Magenta
Odor		: Solvent odor
pH		: Not available
Boiling Point / Boiling Range		: 156～209 ℃
Melting Point / Melting Range		: < －30℃
Flash Point		: 65℃
Flammability (Solid, Gas)		: Not Applicable
Upper / Lower Flammability or Explosive Limits		: 0.85～15.00 vol%
Vapor Pressure		: 450Pa (20℃)
Vapor Density		: 6.6
Relative Density		: 0.96 (25℃)
Solubility (Ies)		: Very small amount
Partition Coefficient (n-octanol / Water)		: Not available
Viscosity		: 3.5mPa・s (25℃)

10. Stability and Reactivity

Conditions to Avoid	: Excessive heat and cold, sparks, ignition sources, direct sunlight and high humidity.
Stability	: Stable
Materials to Avoid	: Oxidant, reducing agent, strong acid, strong base, inert gas, deoxidant
Hazardous Reactions / Decomposition Products	: Combustion: toxic gases, oxides of carbon, oxides of nitrogen
Other	: Plastic and rubbers might be melted.

11. Toxicological Information

Acute Toxicity :

	Oral (rat)	Dermal (rabbit)
Product	LD50 >2,000mg/kg Not classified	LD50 >2,000mg/kg Not classified

Eye Contact : eye irritation

Skin Irritation : irritation, sensitization

Sensitization : Skin sensitization may occur.

Mutagenicity : Available data characterizes components of this product as germ cell mutagenicity

Carcinogenicity : Cyclohexanone (CAS No. 108-94-1)

IARC	Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Specific Target Organ Toxicity - Single Exposure : respiratory system

Specific Target Organ Toxicity - Repeated Exposure : bone marrow, spleen, kidneys, adrenal gland, respiratory system and liver, central nervous system, bone

Reproductive and Developmental Toxicity : Available data characterizes components of this product as reproductive hazards.

Others : Not Available

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 : Hazardous to the Aquatic Environment - Acute Hazard
Calculated value : L(E)C50 >1.0mg/L Category 2

Persistence and Degradability : Not available

Bioaccumulative Potential	: Not available
Other Adverse Effects	: Not available

13. Disposal Considerations

Have waste inks, containers and other materials disposed by licensed industrial waste disposer.
Adsorb to diatom earth and others to dispose waste inks, and use open incinerator.
Dispose of wastes by licensed industrial waste disposer to comply with the local laws and regulations. Empty inks and other materials out of containers if disposed.
Comply with all USA, national and local regulations.
Do not dump this product into sewers, on the ground or into any body of water.

14. Transport Information

	Check a thing without a leak in a container. Perform prevention of collapse of cargo surely.
UN Number	: Not Applicable
US DOT Information	: Not regulated as dangerous goods for transport. *1

*1 Class combustible liquid (NA1993), Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities

15. Regulatory Information

TSCA Status	: All components on TSCA INVENTORY.
SARA TitleⅢ	
Section 311/312 (40 CFR 370)	: Fire Hazard: Yes Pressure Hazard: No Reactivity Hazard: No Immediate Hazard: Yes Delayed Hazard: Yes
California Proposition 65	: This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and / or reproductive toxicity.
Others	: Please refer to any other federal, state and local regulations.

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.
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