Safety Data Sheets

1. Identification

Product Name	: Textile Pigment Ink TP250 Light Cyan
Order No.	: SPC-0730LC-1
General Use	: Inkjet printing ink
Product Description	: Pigment ink
SDS Number	: 037-W250951
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, Toll free) +1 215 207 0061

2. Hazards Identification

[HCS Classification]

Physical Hazards

Flammable Liquids	: Not classified

Health Hazards

Eye Damage / Irritation	: Category 2A
Specific Target Organ Toxicity (Repeated Exposure)	: Category 2 (kidneys)

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

[HCS Label Elements]

Symbol

Signal Word
Warning

Hazard Statements
H319 Cause serious eye irritation
H373 May cause damage to organs through prolonged or repeated exposure(kidney)

Precautionary Statements
[Prevention]
P260 Do not breathe gas/mist.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
[Response]
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
[Disposal]
P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 51.9641 %

3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Ethane-1,2-diol	<10	107-21-1
2	Polyethylene oxide ether with 2,4,7,9-tetramethyl-5-decyne-4,7-diol (2:1)	1-5%	9014-85-1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

General advice	: Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
Inhalation	: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Get medical attention.
Eye Contact	: In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical advice/ attention.
Skin Contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
Ingestion	: If swallowed, call a poison control center or doctor immediately. Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No specific intervention is indicated. Treat symptomatically.

5. Fire Fighting Measures

Flammable Properties	: Flash point : >93.3℃
Extinguishing Media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, Dry chemical, Carbon dioxide (CO2)
Unsuitable Extinguishing Media	: No applicable data available.
Special Hazards	: Hazardous decomposition products formed under fire conditions. (see also section 10) Avoid breathing decomposition products.

Special protective equipment for firefighters	: Exposure to decomposition products may be a hazard to health. Wear self-contained breathing apparatus for firefighting if necessary.
Further information	: Evacuate personnel to safe areas. Stop spill/release if it can be done with minimal risk. Do not allow run-off from fire fighting to enter drains or water courses.

6. Accidental Release Measures

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel)	: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wear suitable protective equipment.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Spill Cleanup	: Contain spill. Soak up with inert absorbent material. Collect and contain contaminated absorbent and dike material for disposal. Keep in suitable, closed containers for disposal. Ventilate the area. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Accidental Release Measures	: Dispose of in accordance with local regulations.

7. Handling and Storage

Handling (Personnel)	: Avoid inhalation, ingestion and contact with skin and eyes. Do not use in areas without adequate ventilation. For personal protection see section "Exposure controls/personal protection" Handle in accordance with good industrial hygiene and safety practice. Keep container closed. Keep away from food and drink. Wash hands before eating, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. Wash contaminated clothing before re-use.

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Handling (Physical Aspects)	: Normal measures for preventive fire protection.
Dust explosion class	: No applicable data available.
Storage	: Keep containers tightly closed in a cool, well-ventilated place. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Do not reuse empty container. Stable under normal conditions.
Storage period	: No applicable data available.
Storage temperature	: No applicable data available.

8. Exposure Controls / Personal Protection

Exposure Limit Values

No	Chemical Name		
1	Ethane-1,2-diol	ACGIH	TLV-C 100 mg/m3 (Aerosol)

Component Biological Limit Values :

Exposure Controls

Occupational Exposure Controls

Appropriate Engineering Controls : Ensure adequate ventilation. Maintain air concentrations below occupational exposure standards. General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits.

Individual Protection Measures, such as Personal Protective Equipment

Respiratory Protection : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

Glove Recommendations : Material: Impervious gloves
Additional protection: Gloves must be inspected prior to use., Gloves should be discarded and replaced if there is any indication of

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degradation or chemical breakthrough., The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., The exact break through time can be obtained from the protective glove producer and this has to be observed., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye /Face Protection : Wear safety glasses or coverall chemical splash goggles.

Skin Protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Lightweight protective clothing and safety shoes are recommended.

Environmental Exposure Controls : Not Available

9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: blue
Odor		: slight
pH		: 7.0-9.0
Boiling Point / Boiling Range		: Not Available
Melting Point / Melting Range		: Not Available
Flash Point		: > 93.3℃ Method: closed cup
Upper / Lower Flammability or Explosive Limits		: Not Available
Relative Density		: Not Available
Solubility		: Not Available
Water Solubility		: Not Available

10. Stability and Reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
Conditions to Avoid	: Avoid extreme heat. Do not freeze.
Stability	: The product is chemically stable under recommended conditions of storage, use and temperature. Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	: None reasonably foreseeable.
Materials to Avoid	: Acids, bases and strong oxidizing agents
Hazardous Reactions / Decomposition Products	: No decomposition if stored and applied as directed. Under fire conditions:, Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11. Toxicological Information

No data is available on the product itself. Information given is based on data on the components.

Ethane-1,2-diol

Inhalation	: no data available
Dermal LD50	: > 3,500 mg/kg , Mouse
Oral LD50	: 1,650 mg/kg , Cat
Skin irritation	: No skin irritation, Rabbit
Eye irritation	: No eye irritation, Rabbit
Skin sensitization	: Does not cause skin sensitization., human
Repeated dose toxicity	: Oral(Rat)- Target Organs: Kidney Kidney damage
Carcinogenicity	: Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects.
Mutagenicity	: Animal testing did not show any mutagenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Reproductive toxicity	: No toxicity to reproduction. No effects on or via lactation. Animal testing showed no reproductive toxicity.
Teratogenicity	: Evidence suggests the substance is not a developmental toxin in animals.

Polyethylene oxide ether with 2,4,7,9-tetramethyl-5-decyne-4,7-diol (2:1)

Inhalation 4 h LC50	: > 5 mg/l , Rat Information given is based on data obtained from similar substances.
Dermal LD50	: > 2,000 mg/kg , Rat Information given is based on data obtained from similar substances.
Oral LD50	: 6,370 mg/kg , Rat
Skin irritation	: No skin irritation, Rabbit
Eye irritation	: Risk of serious damage to eyes., Rabbit
Skin sensitization	: Does not cause skin sensitization., Mouse Information given is based on data obtained from similar substances.
Repeated dose toxicity	: Ingestion(Rat) - 91 d NOAEL: 200 mg/kg No toxicologically significant effects were found.
Mutagenicity	: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals. Information given is based on data obtained from similar substances.
Reproductive toxicity	: No toxicity to reproduction. Animal testing showed no reproductive toxicity.
Teratogenicity	: Animal testing showed no developmental toxicity.

Product

Carcinogenicity	: The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition). None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

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 : Aquatic Toxicity:

Ethane-1,2-diol

96 h LC50	Pimephales promelas (fathead minnow) 72,860 mg/l
96 h ErC50	Pseudokirchneriella subcapitata (green algae) 6,500 mg/l
48 h EC50	Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202

Polyethylene oxide ether with 2,4,7,9-tetramethyl-5-decyne-4,7-diol (2:1)

96 h LC50	Fish 52.5 mg/l OECD Test Guideline 203
72 h EC50	Pseudokirchneriella subcapitata (green algae) 15 mg/l Information given is based on data obtained from similar substances.
72 h NOEC	Pseudokirchneriella subcapitata (green algae) 1 mg/l OECD Test Guideline 201 Information given is based on data obtained from similar substances.
48 h EC50	Aquatic invertebrates 166 mg/l

Environmental Fate

Ethane-1,2-diol

Biodegradability	Readily biodegradable 90 - 100 % OECD Test Guideline 301
Bioaccumulation	Bioaccumulation is unlikely.

Polyethylene oxide ether with 2,4,7,9-tetramethyl-5-decyne-4,7-diol (2:1)

Bioaccumulation	Bioaccumulation is unlikely.

Additional ecological information

No data is available on the product itself. Information given is based on data on the components.

13. Disposal Considerations

Waste disposal methods - Product : If recycling is not practicable, dispose of in compliance with local regulations. Never place unused product down any indoor or outdoor drain.

Waste disposal methods - Container : Do not reuse empty container.
Contaminated/not cleaned containers should be treated/handled like product waste.
Dispose of container properly.
Refer to applicable Local, State/Provincial, and Federal Regulations, as well as industry Standards.

Contaminated : No applicable data available.

packaging

14. Transport Information

Us Department of Transportation (DOT)	: Not regulated
ICAO/IATA	: Not regulated
IMO/IMDG	: Not regulated

15. Regulatory Information

TSCA	: On the inventory, or in compliance with the inventory
SARA 313 Regulated Chemical(s)	: Ethane-1,2-diol
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Humectant, Ethane-1,2-diol, Diglycol ether derivative
NJ Right to Know Regulated Chemical(s)	: Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Humectant, Ethane-1,2-diol, Diglycol ether derivative
CERCLA Reportable Quantity	: 274 lbs Based on the percentage composition of this chemical in the product.: Copper compound
California Proposition 65	: **WARNING:** This product can expose you to chemicals including Ethylene glycol(Ethane-1,2-diol), 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.

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.

Safety Data Sheets

Mimaki Engineering Corporation assumes no legal responsibility for use or reliance upon this information.