

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance or preparation

Product Name : Pigment Ink For Textile Cyan
Product Code : SPC-0350C

1.2. Use of the substance/preparation

General Use : Ink jet printing ink
Product Description : Pigment ink

1.3. Company/undertaking identification

MANUFACTURER

Company Name : Mimaki Engineering Co., Ltd
Address : 2182-3 Otsu, Shigeno, Tomi-shi, Nagano 389-0512 Japan
Telephone No. : +81-268-64-2413
Charge post : Inks and Media Division
Person in charge : Isao Tabayashi
E-mail address : tabayashi@mimaki.jp

IMPORTER/DISTRIBUTOR ESTABLISHED IN EU

Company Name : MIMAKI EUROPE B.V.
Address : Joan Muyskenweg 42-44, 1099CK Amsterdam
Telephone No. : +31-20-4627-640
Person in charge : Sakae Sagane

1.4. Emergency telephone

EMERGENCY : Mimaki Engineering Co., Ltd +81-268-64-2413
TELEPHONE : National Vaccine Information Center (NVIC)
NUMBER : +31-30-274888

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Blue-green liquid

This product is not hazardous according to EEC Directives 67/548/EEC and 99/34/EC including amendments (2001/60/EC and 2006/8/EC)

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3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Chemical Name	Wt%	CAS No.	EINECS No.	Symbol letters	Risk Phrase	Chemical Formula
1	2,2'-oxydiethanol	10.0 - < 12.5	111-46-6	203-872-2	Xn	22	C ₄ H ₁₀ O ₃
2	2-pyrrolidone	7.0 - < 10.0	616-45-5	210-483-1	not classified	not classified	C ₄ H ₇ NO
3	Alkoxyated Thioether	1.0 - < 2.5	Trade Secret	Trade Secret	Xi	36/38 52/53	Trade Secret

*The wording of the symbol(s) and risk phrase(s) is specified in 16.OTHER INFORMATION.

4. FIRST AID MEASURES

- INHALATION:** Move to fresh air. Give artificial respiration if breathing has stopped. Consult a physician.
- SKIN CONTACT:** Wash with water and soap as a precaution. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.
- EYE CONTACT:** Immediately flush eye(s) with plenty of water. Get prompt medical attention.
- INGESTION:** Drink 1 or 2 glasses of water. Consult a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep airway clear.

5. FIRE-FIGHTING MEASURES

- FLAMMABLE PROPERTIES:** Flash point: Noncombustible
- EXTINGUISHING MEDIA:** Thermal decomposition: Combustion generates toxic fumes of the following: nitrogen oxides (NO_x), Carbon oxides, sulfur oxides.
- FIRE FIGHTING INSTRUCTIONS:** polar solvent (alcohol) foam, Water spray, Dry chemical, Carbon dioxide (CO₂)
- FIRE FIGHTING INSTRUCTIONS:** Specific hazards during fire fighting: Dried product can burn. Material can splatter above 100C/212F. Special protective equipment for fire-fighting: Wear self-contained breathing apparatus and protective suit. Further information: Remain upwind. Avoid breathing smoke. Use water spray to cool unopened containers.

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6. ACCIDENTAL RELEASE MEASURES

METHODS FOR CLEANING UP

Keep spectators away. Floor may be slippery; use care to avoid falling. Avoid breathing vapor. Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Keep spills and cleaning runoff out of municipal sewers and open bodies of water. The material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

PERSONAL PRECAUTIONS:

Appropriate protective equipment must be worn when handling a spill of this material. See EXPOSURE CONTROLS/PERSONAL PROTECTION section, for recommendations. If exposed to material during clean-up operations, see FIRST AID MEASURES section, for actions to follow.

7. HANDLING AND STORAGE

HANDLING: Keep from freezing - product stability may be affected. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container tightly closed. Store in a cool, dry, well ventilated place.

STORAGE: Storage temperature: 5-25 degree C

SPECIFIC USES: Formaldehyde will be generated under acidic conditions. Maintain adequate ventilation under these conditions to prevent exposure to formaldehyde above ceiling of 0.3 ppm.

FURTHER INFORMATION: Monomer vapors can be evolved when material is heated during processing operations. Improper disposal or re-use of this container may be dangerous and illegal. Refer to any other EU, national and local measures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values

Component	Regulation	Type of listing	Value
2,2'-oxydiethanol	EH40 WEL	TWA	101 mg/m ³ , 23ppm

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8.2. Exposure controls

8.2.1. Occupational exposure controls

Engineering Controls :	Use only in area provided with appropriate exhaust ventilation.
Respiratory Protection:	Use certified respiratory protection equipment meeting EU requirements (89.656/EEC, 89/686/EEC), or equivalent, when respiratory risks can not be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.
Hand Protection:	Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene gloves. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.
Eye Protection:	Use chemical splash goggles. Eye protection worn must be compatible with respiratory protection system employed.
Skin Protection :	Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.
Protective measures :	Facilities strong or utilizing this material should be equipped with an eyewash facility and a safety shower.

8.2.2. Environmental exposure controls

Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance - Physical state	: Translucent liquid
- Colour	: Blue-green
Odour	: mild

9.2. Important health, safety and environmental information

pH	: 7.5 - 9.5
Boiling Point / Boiling Range	: 100 degree C Water
Flash Point	: Noncombustible

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Flammability(solid, gas)	: Not available
Vapour Pressure	: 22,6648 Pa Water
Relative density	: 0.95 - 1.05
Solubility	: Not available
Water solubility	: Dilutable
Viscosity	: 2.500 - 4.000 mPa.s
Evaporation Rate	: <1.00 Water
Percent Volatility	: 64-67 % water

9.3. Other information

Melting Point / Melting Range	: 0 degree C no data available
Specific Gravity	: Not available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

CONDITONS TO AVOID:	Avoid temperatures above 177C/350F, the onset of polymer decomposition. Thermal decomposition is dependent on time and temperature.
STABILITY:	This material is considered stable.
MATERIALS TO AVOID:	Avoid contact with acids, alkalies and strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition may yield acrylic monomers. Product will not undergo polymerization.

11. TOXICOLOGICAL INFORMATION

The following toxicological data shown are those obtained from tests on products of similar composition.

ACUTE TOXICITY:

	Oral LD ₅₀	Dermal LD ₅₀	Inhalant LC ₅₀
2,2'-oxydiethanol	>10,000 mg/kg (rat)	>10,000 mg/kg (rabbit)	

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EYE IRRITATION:	Not available
SKIN IRRITATION:	Rabbit slight irritation
SENSITIZATION:	Patch test on human volunteers did not demonstrate sensitization properties.
MUTAGENICITY:	Not available

12. ECOLOGICAL INFORMATION

	There is no data available for this product.
ECOTOXICITY:	2,2'-oxydiethanol
	Toxicity to fish: LC50 >100 mg/l
	Toxicity to aquatic invertebrates: EC50 Daphnia magna 100 mg/l

13. DISPOSAL CONSIDERATIONS

Disposal:	Entrust a person of waste industry with processing. Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. Comply with all EU, national and local regulations. <u>Do not dump this product into sewers, on the ground or into any body of water.</u>
European Waste Catalogue (94/3 EC)	The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact waste disposal services.

14. TRANSPORT INFORMATIONS

	Check a thing without a leak in a container.
	Perform prevention of collapse of cargo surely.
	Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.
Classification for ROAD and Rail transport: (ADR/RID)	Not regulated (Not dangerous for transport)
Classification for SEA transport: (IMO-IMDG)	Not regulated (Not dangerous for transport)

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Classification for AIR transport: (IATA/ICAO)	Not regulated (Not dangerous for transport)
UN Class/UN Number:	Not applicable

15. REGULATORY INFORMATION

Label:	Classification and labeling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC).
Hazard symbol and Indication of danger:	This product is not hazardous according to EEC Directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC)
EU. EINECS (EINECS):	This product satisfies all the requirements of the European Inventory of Existing Chemical Substances (EINECS).
OTHERS	Please refer to any EU, national and local measures.

16. OTHER INFORMATION

From clause 3	
Symbol letters :	Xn Harmful Xi Irritant
Risk phrase :	22 Harmful if swallowed. 36/38 Irritating to eyes and skin. 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

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For Textile Cyan
MSDS No. 032-33W03CC
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Revision history

Version	Date	Content
1.0	Oct 16, 2007	First issue
2.0	Feb 5, 2008	No. 1.4 EMERGENCY TELEPHONE NUMBER