

Safety Data Sheet

Discharge Liquid For Textile Cartridge

Revised 10 Feb 2005

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Discharge Liquid for textile cartridge**
 Product Code: **SPC-0409**
 Company Identification
 Manufacturer's Name / Supplier Address Mimaki Engineering Co., Ltd.
 5-9-41 Kita Shinagawa, Shinagawa-ku Tokyo 14-0001
 Phone Number / Fax 81-3-5420-8671 / 81-3-5420-8687
 Contact Person Masaaki Fujita

2. COMPOSITION / INFORMATION ON INGREDIENTS

Components(% by weight)

<u>Material</u>	<u>CAS Number</u>	<u>Weight%</u>
Reducing agent	Trade secret	5-10
Glycols	Trade Secret	10-20
1-methyl-2-pyrrolidone	872-50-4	5-10
2-(2-methoxyethoxy)ethanol	111-77-3	5-10
Surface-active agent	Trade Secret	5-15
Water	7732-18-5	55-65

See SECTION7, Handling and Storage.
 See SECTION8, Controls/ Personal Protection

3. HAZARDS IDENTIFICATION

Not enough data for hazardous classification

4. FIRST AID MEASURE

Inhalation

Move subject to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if breathing has stopped. See a physician.

Eye Contact

Flush eyes with a large amount of water for at least 15 minutes. Get prompt medical attention.

Skin Contact

Remove contaminated clothing. Wash affected skin areas thoroughly with soap and water. See a physician. Wash contaminated clothing thoroughly before reuse. Do not take clothing home to be laundered.

Ingestion

Induce vomiting by giving 2 glasses of water to drink and touching back of subject's throat with finger. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep airway clear.

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Note to Physician

This material may have a mechanism of intoxication similar to ethylene glycol. On that basis, treatment similar to ethylene glycol may be of benefit. Ethylene glycol is moderately toxic by ingestion. Systemic effects include possible liver and kidney damage. If swallowed, immediate evacuation of the stomach is advisable. Ethanol is an antidote. Its early administration may block the formation of nephrotoxic metabolites of ethylene glycol in the liver. Ethanol should be given orally first in a 50% solution, then in a 20% solution. Hemodialysis is necessary.

5. FIRE FIGHTING MEASURES

Flammability :	No data available
Suitable extinguishing media :	Dry chemical, carbon dioxide.

Extinguishing Agents

Use extinguishing media appropriate for surrounding fire.

Personal Protective Equipment

Wear self-contained breathing apparatus (pressure-demand NIOSH approved or equivalent) and full protective gear.

Special Procedures

Move containers promptly out of fire zone. If removal is impossible, cool containers with water spray. Remain upwind. Avoid breathing smoke.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection

Appropriate protective equipment must be worn when handling a spill of this material. See SECTION8, Exposure Controls / Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION4, First Aid Measures, for actions to follow.

Procedure

Keep spectators away. Ventilate the spill area. Floor may be slippery; use care to avoid falling. Contain spills immediately with inert materials (e. g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.
CAUTION: Keep spills and cleaning run off out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

Storage conditions

The minimum recommended storage temperature for this material is 10C. The maximum recommended storage temperature for this material is 40C.
Keep container tightly closed when not in use.

Handling Procedure

Vapors can be evolved when material is heated during processing operations. See SECTION8, Exposure Controls / Personal Protection, for types of ventilation required.
NOTE: Formaldehyde will be generated under acidic or heating conditions. Maintain adequate ventilation under these conditions to prevent exposure to formaldehyde above the Mimaki Co. recommended ceiling of 0.3ppm. Wash after handling and shower at end of work period.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Information

<u>No.</u>	<u>Material</u>	<u>CAS Number</u>	<u>Weight%</u>
1	Reducing agent	Trade secret	5-10
2	Glycols	Trade Secret	10-20
3	1-methyl-2-pyrrolidone	872-50-4	5-10
4	2-(2-methoxyethoxy)ethanol	111-77-3	5-10
5	Surface-active agent	Trade Secret	5-15
6	Water	7732-18-5	55-65

Composition	OSHA		ACGIH	
	<u>No.</u>	<u>Units</u>	<u>TWA</u>	<u>STEL</u>
1			None	None
2			None	None
3			None	None
4			None	None
5			None	None
6			None	None

Respiratory Protection

A respiratory protection program meeting OSHA 1910. 134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in 'Exposure Limit Information'.

Eye Protection

Use chemical splash goggles (ANSI Z87-1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection

Chemical – resistant glove should be worn whenever this material is handled.

Glove permeation data does not exist for this material. This following glove(s) should be used for splash protection only:

- Neoprene

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.

Other Protection

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation)

Use local exhaust ventilation with a minimum capture velocity of 100ft/min. (0.5m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless transparent liquid
Odor Characteristic	Sulfur odor
pH	8.0 to 9.9
Viscosity	4.0 to 4.9 cps
Specific Gravity (Water = 1)	1.00 to 1.20
Vapor Density (Air=1)	< 1 Water
Vapor pressure	17mmHg Water
Melting Point	No Data
Boiling Point	100 /212° F Water
Solubility in Water	Dilutable
Percent Volatility	55 to 65%
Evaporation Rate (BAC = 1)	< 1 Water

The physical and chemical data given in Section 9 are typical values for this product and are not intended to be product specifications.
See Section 5, Fire Fighting Measures

10. STABILITY AND REACTIVITY

Instability

This material is considered stable.

Hazardous Decomposition Products

Thermal decomposition may yield the following:
- acrylic monomers

Hazardous Polymerization

Product will not undergo polymerization.

Incompatibility

There are no known materials which are incompatible with this product.

11. TOXICOLOGICAL INFORMATION

Acute Data

No toxicity data are available for this material.

The information shown in Section 3, Hazards Identification, is based on toxicity profiles of similar materials or on the components present in this material.

Toxicity data for component number 6:

Eye Irritation – rabbit: severe irritation

Skin Irritation – rabbit: slight irritation

12. ECOLOGICAL INFORMATION

Mobility: No application data

Remain/resolution: In Cashinhou existing chemical safety (resolution and concentrate) check result, 1,2-Benzotiazorin 3(2H)-one is assumed that on is an accident resolution.

However, the result in which having been resolved to the metabolic thing with low two kinds of environmental toxicitys by the Bunch&Chambers method (It examines the sealing up type, leave sitting-blows in air, and is an examination, and is 28 days in BIT of none and 5ppm density) in the finding at the laboratory level is obtained. It is confirmed to resolve light in water, and to resolve it in the soil gradually.

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Ecology accumulation:

The result in which ecology accumulation is low is obtained the above-mentioned 1,2-Benzotiazorin -3(2H)-one.

13. DISPOSAL CONSIDERATIONS

Procedure

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.
(See 40 CFR 268)

14. TRANSPORTATION INFORMATION

(Not meant to be all inclusive)

US DOT Hazard Class: NONREGULATED

15. REGULATORY INFORMATION

(Not meant to be all inclusive)

Workplace Classification

This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE 3: Section 311/312 Categorizations (40CFR 370)

This product is a hazardous chemical under 29CFR 1910.1200, and is Categorized as an immediate and delayed health hazard.

SARA TITLE 3: Section 313 Information (40CFR 372)

This product does not contain a chemical which is listed in Section 313 at or **above de minimis** concentrations.

CERCLA Information (40CFR 302.4)

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title Section 304.

Waste Classification

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, reactivity, and is not listed in 40 CFR 261.33.

The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

United States

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic substances Control Act(TSCA) Chemical Substance Inventory.

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right - to - Know Act.

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16. OTHER INFORMATION

Recommended uses :Ink for MIMAKI ink-jet printers

Restrictions :

Information on this data sheet represents our current data and the best opinion as to the proper use in handling of this product under normal conditions specified in our User's Manual. However, neither MIMAKI ENGINEERING, CO., LTD nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we do not guarantee that these are the only hazards that exist.

ABBREVIATIONS:

ACGIH = American Conference of Governmental Industrial Hygienists

OSHA = Occupational Safety and Health Administration

TLV = Threshold Limit Vale

PEL = Permissible Exposure Limit

TWA = Time Weighted Average

STEL = Short – Term Exposure Limit

BAc = Butyl acetate

Italics denote a revision from previous MSDS in this area/

End of MSDS