Safety Data Sheet

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

1.1. Identification of the substance or preparation

Product Name : SS Ink Magenta

Product Code : SPC-0347M-2

1.2. Use of the substance/preparation

General Use : For ink jet

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

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW : Magenta. Flammable liquid with a solvent odor. Irritating to eyes, skin and respiratory tract. Acute toxic substance. May cause organic solvent poisoning.


Xn, Xi This product is classified as 'Irritant' and 'Harmful'.

POTENTIAL HEALTH EFFECTS

Inhalation : R20 Harmful by inhalation.

Eye : R36 Irritating to eyes.
Skin : R21 Harmful in contact with skin.
Ingestion : Harmful if swallowed.

POTENTIAL ENVIROMENTAL EFFECTS
: Harmful to aquatic organisms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Chemical Name	Wt%	CAS No.	EINECS No.	Symbol letters	Risk Phrase	Chemical Formula
1	2-butoxyethyl acetate	70-80	112-07-2	203-933-3	Xn	20/21	C8H16O3
2	2-methoxy-1-methylethyl acetate	10-20	108-65-6	203-603-9	Xi	10-36	C6H12O3
3	Cyclohexanone	1.0-4.5	108-94-1	203-631-1	Xn	10-20	C6H10O

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

4. FIRST AID MEASURES

INHALATION : Fresh air, rest. Refer for medical attention.
EYE : First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
SKIN : Remove contaminated clothes. Rinse skin with plenty of water or shower. Rinse and then wash skin with water and soap. Refer for medical attention.
INGESTION : Rinse mouth. Give plenty of water to drink. Give slurry of activated charcoal in water to drink. DO NOT induce vomiting. Refer for medical attention.

PROTECTION TO FIRST-AIDERS
: Please wear a tool for appropriate protection.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES : Flash point 64.1 deg C
Flammable point 0.8-10.7%
Carbon monoxide occurs with harmful gas when this product burns.

EXTINGUISHING MEDIA	: Alcohol-resistant foam, carbon dioxide, powder. Do not use stick water.
FIRE FIGHTING INSTRUCTIONS	: Remove inflammables immediately. Perform the fire fighting from windward. Wear full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus).

6. ACCIDENTAL RELEASE MEASURES

Personal protection	: Filter respirator for organic gases and vapours. Chemical protection suit. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilation.
Method	: Remove all ignition sources. Contain spilled liquid with sand or earth. DO NOT use combustible materials, such as sawdust. Absorb remaining liquid in sand or inert absorbent and remove to safe place. The material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

7. HANDLING AND STORAGE

HANDLING	: Handle in well-ventilated area. Avoid contact with skin, eyes, or clothing. Use proper protection (gloves, masks, aprons, goggles, etc.) Wash thoroughly after handling. To reduce potential for static discharge, bond and ground containers and equipment when transferring material.
STORAGE	: Fireproof. Separated from strong oxidants, and strong bases. Cool. Keep in the dark. Dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values

No	Chemical Name	
1	2-butoxyethyl acetate	ACGIH 2007 TLVs and BEIs: TWA 20ppm MAK: 20 ppm, 130 mg/m³, H; Peak limitation category: II(4); Pregnancy risk group: C; (DFG 2003).

2	2-methoxy-1-methylethyl acetate	ACGIH 2007 TLVs and BEIs: TWA 150ppm, STEL 200ppm MAK: 50ppm, 275mg/m3 (1996)
3	Cyclohexanone	EU OEL (EU 2000): TWA 10ppm, STEL 20ppm ACGIH 2007 TLVs and BEIs: TWA 20ppm, STEL 50ppm

8.2. Exposure controls

8.2.1. Occupational exposure controls

Engineering Controls : Use exhaust ventilation to keep airborne concentration below exposure limits.

Personal Protection

Respiratory Protection : Wear gas masks for organic gases. Wear ventilation masks when working in closed area. An air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where air-borne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited.

Eye Protection : Safety goggles, safety spectacles, face shield, or eye protection in combination with breathing protection. Wear coverall, chemical goggles and face shield when handling.

Skin Protection : Protective gloves. Protective clothing. Wear gloves that resist organic solvents and chemicals.

Ingestion : Do not eat, drink, or smoke during work.

8.2.2. Environmental exposure controls

: Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance	- Physical state	: Liquid
	- Colour	: Magenta
Odour		: Solvent odor

9.2. Important health, safety and environmental information

pH	: Not Applicable
Boiling Point / Boiling Range	: 146 degree C or higher
Flash Point	: 64.1 degree C
Flammable point	: 0.8- 10.7%
Vapour Pressure	: 500Pa (20 degree C)
Relative density	: 0.966±0.01 (20 degree C)

Solubility : Not available
Water solubility : Not available
Viscosity : Not available

9.3. Other information

Melting Point / Melting Range : Not available
Auto-Ignition Temperature :340 degree C
Specific Gravity : Not available

10. STABILITY AND REACTIVITY

CONDITONS TO AVOID : Fire. High temperature. High humidity. Sunlight.
STABILITY : Stable.
MATERIALS TO AVOID : Strong oxidants.
HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide, low-molecular monomer gases occurs with harmful gas when this product burns.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

	Oral LD50	Dermal LD50	Inhalation LC50
2-butoxyethyl acetate	(mouse) 3200mg/kg (rat) 1600 mg/kg	(rabbit) 1480 mg/kg	(rat) 2400mg/kg
2-methoxy-1-methylethyl acetate	(rat) >2000 mg/kg	(rabbit) >2000 mg/kg	(rat) >20 mg/l / 6 hours
Cyclohexanone	(mouse) 1,400-2,110 mg/kg (rat) 1,000-3,000 mg/kg	(rat) 948 mg/kg (rabbit) 948-1,000 mg/kg	(rat) 2,675-8,000 ppm(4h)

EYE IRRITATION : Irritating to eyes.
SKIN IRRITATION : Irritating to skin.
SENSITIZATION : Not available
MUTAGENICITY : Not available
CARCINOGENICITY : 2-butoxyethyl acetate ACGIH: A3
N-butyl acetate ACGIH: A4
Cyclohexanone ACGIH: A3, IARC: 3

12. ECOLOGICAL INFORMATION

The substance is harmful to aquatic organisms. 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 : 2-butoxyethyl acetate
(Daphnia magna) EC50 67.5mg/l (48h)
: 2-methoxy-1-methylethyl acetate
(Selenastrum capricornutum) EC50 >1000mg/l (48h)
NOEC >1000mg/l (48h)
EC50 >1000mg/l (72h)
NOEC >1000mg/l (72h)
(Daphnia magna) EC50 370mg/l (48hr)
EC50 >100mg/l (21day)
NOEC >100mg/l (21day)
(Oryzias latipes) LC50 >100mg/l (96h)
LC50 64mg/l (14day)
NOEC 48mg/l (14day)
: Cyclohexanone
(Daphnia magna) EC50 800mg/l(24-h)
(Oncorhynchus mykiss) LC50 303mg/l (48h)
(Pimephales promelas) LC50 527mg/l (96h)

PERSISTENCE AND DEGRADABILITY
: Not available

BIOACCUMULATIVE POTENTIAL
: Octanol/water partition coefficient
(2-butoxyethyl acetate) log Pow: 1.51
Cyclohexanone log Pow: 0.81

RESULTS OF PBT ASSESSMENT
: Not available

OTHER ADVERSE SFFECTS
: Not available

Safety Data Sheet

13. DISPOSAL CONSIDERATIONS

Have waste liquids, containers and other materials disposed of by licensed industrial waste contractors. Keep waste liquids from flushing containers, machines or other equipment from flowing directly to the ground or drainage. Dispose of wastes from drainage, combustion, etc, in compliance with laws and regulations on waste disposal or cleaning, or have them disposed of by contractors. To avoid harmful gases, do not use incinerators without flushing systems to burn wastes and other materials. Comply with all EU, national and local regulations. Do not dump this product into sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATIONS

Check a thing without a leak in a container.
Perform prevention of collapse of cargo surely.
UN Number: Not applicable
Obey each laws and ordinances.

15. REGULATORY INFORMATION

This product is classified as follows and labeled accordingly.

Symbol :  Xn (Harmful), Xi (Irritant)
Risk Phrase : 20/21 (Harmful by inhalation and in contact with skin.)
36 (Irritating to eyes.)
Safety Advise : 24/25 (Avoid contact with skin and eyes.)

Please refer to any other EU, national and local measures.

16. OTHER INFORMATION

From clause 3

Symbol letters : Xn Harmful, Xi Irritant
Risk phrase : 10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
36 Irritating to eyes.

Safety Data Sheet

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 dose not relates to use in combination with any other material or process.

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

Revision history

Version	Date	Content
1.0	2008/02/01	First issue