

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:SS21 ink in cartridge, SPC-0501CCompany IdentificationMimaki Engineering Co., Ltd.Manufacturer's Name / Supplier AddressMimaki Engineering Co., Ltd.2182-3, Otsu, Shigeno, Tomishi,
Nagano 389-0512 JapanPhone Number / Fax
Contact Person81-268-64-2413 / 81-268-62-3996
Isao Tabayashi (Inks & Media Dept.)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components Chemical or common name	CAS NO.	EINECS	S NO.	Concentration (%)		
Xylene	1330-20-7	215-535	5-7	0.01-0.1		
Trimethylbenzene - 1,3,5	108-67-8	203-604	-4	(Specified chemical: PRTR) 0.1-0.5 (Specified chemical: PRTR)		
Phthalocyanine blue	Registered	Register	red	2.0-8.0 (Organic pigment)		
EU classification						
Chemical or common name	Classification		Indicat	tion		
Xylene	R10·Xn;R20/21·X	Ki;R38	[Xn]∙I	R20/21-10-38·S(2)-25		
Trimethylbenzene - 1,3,5	R10·Xi;R37·N;R51	/53	[Xi][N]·R10-37-51/53·S(2)-61		

3. HAZARDS IDENTIFICATION

Classified name:	Flammable liquid, acute toxic substance
Hazard comments:	Stagnant vapor may cause fire.
	May cause organic solvent poisoning.
	Do not inhale. Inhalation may cause any of the following symptoms:
	Dizziness, headache
	Slight anesthesia
	Irritation to eyes, skin or respiratory tract

4. FIRST AID MEASURE

_			
ſ	Date: 07/07/07 SPC-0501C	D*****	Ver.0.8
			Page1/5

Flush eyes with plenty of water for at least 15 minutes.
Consult a doctor immediately.
Immediately remove from skin with cloth.
Flush thoroughly with plenty of water and soap or skin detergent.
Do not use solvent or thinner.
Consult a doctor in case of change of appearance or ache.
If swallowed, keep calm and consult a doctor immediately.
Keep from swallowing vomit.
If inhaled, immediately remove to fresh air and keep warm and calm. If
breathing irregularly or not breathing, give artificial respiration. Keep from
swallowing vomit.
Consult a doctor immediately.
If inhaled and feeling sick, remove to fresh air, keep warm and calm and consult a doctor.

5. FIRE FIGHTING MEASURES

Extinguishers:	CO_2 , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

	Use proper protection (gloves, masks, aprons, goggles, etc.)
	Handle in well-ventilated area.
	Prohibit use of fire, sparks or heat source.
	Ground equipment against electrostatics and use explosion-proof electric
	equipment.
	Use spark-proof tools.
	Keep used cloths, waste paints or spray dusts in water until disposal.
	Use local exhaust system and proper protection if working in closed area.
Storing precautions:	
	Keep from sunlight.
	Store in well-ventilated area.

Keep from open fire or heat source.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Date: 07/07/07 SPC-0501C



Equipment:	Use explosion-proof handling equipment.		
	Use exhaust system to prevent vapor build-up		
	Ground transporting, scooping, agitating or other liquid handling		
	equipment.		
	Keep heat or fire sources from handling area.		
	If working indoors, use automatic coating machine or other proper		
	equipment to protect workers from direct exposure or use local exhaust		
	system to protect workers from exposure.		
Protective gear:	Eyes: Wear eye shields.		
	Skin: Wear gloves that resist organic solvents and chemicals.		
	Inhalation: Wear gas masks for organic gases. Wear ventilation masks		
	when working in closed area.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Condition (at 20°C): Color: Odor: Boiling point: Vapor pressure Pa (°C) apor density (at 20°C): pH: Flash point: Ignition point: Flammable point:	0.972±0.01 Not Applicable 69.1°C 169°C 2.2% to 33.0%
Flammable point: Others:	2.2% to 33.0% None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

Material	Control condensation	n AGGIH (TLV)	IARC class	Other hazard
Xylene	100ppm	100ppm	3	(rat)LD:4300mg/kg
Trimethylbe	nzene - 1,3,5 25ppm	25ppm		(rat)LD:1303mg/kg

[Other hazard information on components]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Date: 07/07/07 SPC-0501C

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

15. **REGULATORY INFORMATION**

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable, Xi Irritant, Xn Harmful, N Dangerous for		
Risk Phrases:	environment R10 Flammable. R20/R21 Harmful by inhalation and if swallowed.		
	 R37 Irritating to respiratory system. R38 Irritating to skin R51/53 Toxic to organisms, may cause long-term adverse effects in the aquatic environment. 		
Safety Phrases :	S25 Avoid contact with eyes.S61 Avoid release to the environment. Refer to special instruction/safety dada sheet.		

17. OTHER INFORMATION

Date: 07/07/07 SPC-0501C



Use application: Ink for MIMAKI ink jet plotter

Caution:

This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0501C	D*****	Ver.0.8
			Page5/5



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Company Identification	SS21 ink in	cartridge, SPC-	0501M	
Manufacturer's Name / Supplier Address Mimaki Engineering Co., Ltd.			td.	
2182-3, Otsu, Shigeno, Tomishi,			iishi,	
		Nagano	389-0512 Japan	
Phone Number / Fax		81-268-	64-2413 / 81-268-62	2-3996
Contact Person		Isao Tat	oayashi (Inks & Mec	lia Dept.)
2. COMPOSITIO	ON / INFOR	RMATION O	N INGREDIENT	Ϋ́S
Hazardous components				
Chemical or common name		CAS NO.	EINECSS NO.	Concentration (%)
Propylene glycol monom	iethyl acetate	108-65-6	203-603-9	1.0-20.0 (Organic nigmont)
				(Organic pigment)
EU classification				
Chemical or common name	9	Classification	Indica	tion
Propylene glycol monomet	hyl acetate	R10·Xi;R36	[Xi]·R	10-36·S(2-)25
3. HAZARDS ID	ENTIFICA	TION		
Classified name:	Flammable	e liquid, acute to	oxic substance	
Hazard comments		apor may cause		
May cause organic solvent poisoning.				
			may cause any of th	ne following symptoms:
		ess, headache		
		anesthesia		
		on to eyes, skin	or respiratory tract	
4. FIRST AID M	EASURE			
Eye:			water for at least 15	5 minutes.
		doctor immedia	•	
Skin contact:		-	n skin with cloth.	
			•	ap or skin detergent.
		e solvent or thir		ana ar acha
Swallowing:			of change of appeara and consult a doctor	
Swanowing.		swallowing vo		mineuratory.
Inhalation:	·	•		nd keep warm and calm. If
		•		tificial respiration. Keep from
	swallowin	g vomit.		
		doctor immedia	•	
		-	k, remove to fresh a	ir, keep warm and calm and
	consult a c	loctor.		

5. FIRE FIGHTING MEASURES

Extinguishers:	CO_2 , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

Use proper protection (gloves, masks, aprons, goggles, etc.) Handle in well-ventilated area. Prohibit use of fire, sparks or heat source. Ground equipment against electrostatics and use explosion-proof electric equipment. Use spark-proof tools. Keep used cloths, waste paints or spray dusts in water until disposal. Use local exhaust system and proper protection if working in closed area.

Storing precautions:

Keep from sunlight. Store in well-ventilated area. Keep from open fire or heat source

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Equipment:	Use explosion-proof handling equipment. Use exhaust system to prevent vapor build-up Ground transporting, scooping, agitating or other liquid handling equipment. Keep heat or fire sources from handling area. If working indoors, use automatic coating machine or other proper equipment to protect workers from direct exposure or use local exhaust system to protect workers from exposure.
Protective gear:	 Eyes: Wear eye shields. Skin: Wear gloves that resist organic solvents and chemicals. Inhalation: Wear gas masks for organic gases. Wear ventilation masks when working in closed area.

9.	PHYSICAL AND CHEMICAL PROPERTIES
----	----------------------------------

D***** Ver.0.8 Page2/4

Date: 07/07/07 SPC-0501M



Condition (at 20°C):	Liquid
Color:	Magenta
Odor:	Slight solvent odor
Boiling point:	124°C or higher
Vapor pressure Pa (°C)	: Less than 133(20)
apor density (at 20°C):	0.970±0.01
pH:	Not Applicable
Flash point:	64.1°C
Ignition point:	169°C
Flammable point:	2.2% to 33.0%
Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Date: 07/07/07 SPC-0501M



Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

15. **REGULATORY INFORMATION**

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable, Xi Irritant
Risk Phrases:	R10 Flammable. R36 Irritating to eyes.
Safety Phrases:	S25 Avoid contact with eyes.

17. OTHER INFORMATION

Use application: Ink for MIMAKI ink jet plotter

Caution: This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0501M	D*****	Ver.0.8
			Page4/4



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:SS21 ink in cartridge, SPC-0501YCompany IdentificationMimaki Engineering Co., Ltd.Manufacturer's Name / Supplier AddressMimaki Engineering Co., Ltd.2182-3, Otsu, Shigeno, Tomishi,
Nagano 389-0512 JapanPhone Number / Fax81-268-64-2413 / 81-268-62-3996
Isao Tabayashi (Inks & Media Dept.)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components Chemical or common name	CAS NO.	EINECS		Concentration (%)
Xylene	1330-20-7	215-535	5-1	0.01-0.1
Trimethylbenzene - 1,3,5	108-67-8	203-604	-4	(Specified chemical: PRTR) 0.1-0.5 (Specified chemical: PRTR)
Nickel compound	Registered	Register	red	2.0-8.0 (Specified chemical: PRTR)
<u>EU classification</u> Chemical or common name Xylene Trimethylbenzene - 1,3,5	Classification R10·Xn;R20/21·2 R10·Xi;R37·N;R51	·		tion R20/21-10-38·S(2)-25 I] ·R10-37-51/53·S(2)-61

3. HAZARDS IDENTIFICATION

Classified name:	Flammable liquid, acute toxic substance		
Hazard comments:	Stagnant vapor may cause fire.		
	May cause organic solvent poisoning.		
	Do not inhale. Inhalation may cause any of the following symptoms:		
	Dizziness, headache		
	Slight anesthesia		
	Irritation to eyes, skin or respiratory tract		

4. FIRST AID MEASURE

D*****	Ver.0.8
	Page1/5

Date: 07/07/07 SPC-0501Y

Eye:	Flush eyes with plenty of water for at least 15 minutes.
•	Consult a doctor immediately.
Skin contact:	Immediately remove from skin with cloth.
	Flush thoroughly with plenty of water and soap or skin detergent.
	Do not use solvent or thinner.
	Consult a doctor in case of change of appearance or ache.
Swallowing:	If swallowed, keep calm and consult a doctor immediately.
	Keep from swallowing vomit.
Inhalation:	If inhaled, immediately remove to fresh air and keep warm and calm. If
	breathing irregularly or not breathing, give artificial respiration. Keep from
	swallowing vomit.
	Consult a doctor immediately.
	If inhaled and feeling sick, remove to fresh air, keep warm and calm and consult a doctor.

5. FIRE FIGHTING MEASURES

Extinguishers:	CO_2 , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

	Use proper protection (gloves, masks, aprons, goggles, etc.)
	Handle in well-ventilated area.
	Prohibit use of fire, sparks or heat source.
	Ground equipment against electrostatics and use explosion-proof electric equipment.
	Use spark-proof tools.
	Keep used cloths, waste paints or spray dusts in water until disposal.
	Use local exhaust system and proper protection if working in closed area.
Storing precautions:	
	Keep from sunlight.
	Store in well-ventilated area.

Keep from open fire or heat source.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Date: 07/07/07 SPC-0501Y



Equipment:	Use explosion-proof handling equipment.		
	Use exhaust system to prevent vapor build-up		
	Ground transporting, scooping, agitating or other liquid handling		
	equipment.		
	Keep heat or fire sources from handling area.		
	If working indoors, use automatic coating machine or other proper		
	equipment to protect workers from direct exposure or use local exhaust		
	system to protect workers from exposure.		
Protective gear:	Eyes: Wear eye shields.		
	Skin: Wear gloves that resist organic solvents and chemicals.		
	Inhalation: Wear gas masks for organic gases. Wear ventilation masks		
	when working in closed area.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Condition (at 20°C):	Liquid
Color:	Yellow
Odor:	Slight solvent odor
Boiling point:	176°C or higher
Vapor pressure Pa (°C)): Less than 133(20)
apor density (at 20°C):	0.976 ± 0.01
pH:	Not Applicable
Flash point:	67.7°C
Ignition point:	169°C
Flammable point:	2.2% to 33.0%
Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

Material	Control condensati	on AGGIH (TLV	() IARC class	Other hazard
Xylene Trimethylbe	100ppi nzene - 1,3,5 25ppm	11	-	(rat)LD:4300mg/kg (rat)LD:1303mg/kg

[Other hazard information on components]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Date: 07/07/07 SPC-0501Y

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

15. REGULATORY INFORMATION

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Applicable Fire Defense Law: Hazardous material 4th category, 2rd Petroleum oil (Non-aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable, Xi Irritant, Xn Harmful, N Dangerous for
	environment
Risk Phrases:	R10 Flammable.
	R20/R21 Harmful by inhalation and if swallowed.
	R37 Irritating to respiratory system.
	R38 Irritating to skin
	R51/53 Toxic to organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases :	S25 Avoid contact with eyes.
	S61 Avoid release to the environment. Refer to special instruction/safety dada sheet.

17. OTHER INFORMATION

Date: 07/07/07 SPC-0501Y



Use application: Ink for MIMAKI ink jet plotter

Caution: This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to

End of MSDS

change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0501Y	D*****	Ver.0.8
			Page5/5



Material Safety Data Sheet

PRODUCT AND COMPANY IDENTIFICATION 1.

Product Name: SS21 ink in cartridge, SPC-0501K **Company Identification** Manufacturer's Name / Supplier Address Mimaki Engineering Co., Ltd. 2182-3, Otsu, Shigeno, Tomishi, Nagano 389-0512 Japan 81-268-64-2413 / 81-268-62-3996 Phone Number / Fax Isao Tabayashi (Inks & Media Dept.) Contact Person

2. **COMPOSITION / INFORMATION ON INGREDIENTS**

Haz	ardous components			
Cher	nical or common name	CAS NO.	EINECSS NO.	Concentration (%)
n-bu	ityl acetate	123-86-4	204-658-1	2.0-4.0
				(Organic solvent)
Cart	oon black	Registered	Registered	2.0-8.0
		-	-	(Organic solvent)
EU o	classification			-
Cher	nical or common name	Classification	Classification Indication	
n-bu	tyl acetate	R10·R66·R67	R:10-	66-67·S(2-)25
3.	HAZARDS IDE	NTIFICATION		
4.	Classified name: Hazard comments: FIRST AID MF			
				5
	Eye:	Flush eyes with plenty of water for at least 15 minutes.		
	01	Consult a doctor immediat	•	
	Skin contact:	Immediately remove from		
		Flush thoroughly with plen	-	ap or skin detergent.
		Do not use solvent or think		
		Consult a doctor in case of	f change of appeara	ance or ache.

If swallowed, keep calm and consult a doctor immediately. Swallowing:

Keep from swallowing vomit. Inhalation: If inhaled, immediately remove to fresh air and keep warm and calm. If breathing irregularly or not breathing, give artificial respiration. Keep from swallowing vomit. Consult a doctor immediately. If inhaled and feeling sick, remove to fresh air, keep warm and calm and consult a doctor.



5. FIRE FIGHTING MEASURES

Extinguishers:	CO_2 , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

Storing precautions:	Use proper protection (gloves, masks, aprons, goggles, etc.) Handle in well-ventilated area. Prohibit use of fire, sparks or heat source. Ground equipment against electrostatics and use explosion-proof electric equipment. Use spark-proof tools. Keep used cloths, waste paints or spray dusts in water until disposal. Use local exhaust system and proper protection if working in closed area.	
Storing precautions.		
	Keep from sunlight.	
	Store in well-ventilated area.	
	Keep from open fire or heat source.	
8. EXPOSURE CO	TROLS / PERSONAL PROTECTION	
Equipment:	Use explosion-proof handling equipment.	
	Use exhaust system to prevent vapor build-up	
	Ground transporting, scooping, agitating or other liquid handling equipment.	
	Keep heat or fire sources from handling area.	
	If working indoors, use automatic coating machine or other proper	
	equipment to protect workers from direct exposure or use local exhaust	
	system to protect workers from exposure.	
Protective gear:	Eyes: Wear eye shields.	
C	Skin: Wear gloves that resist organic solvents and chemicals.	
	Inhalation: Wear gas masks for organic gases. Wear ventilation masks	

9. PHYSICAL AND CHEMICAL PROPERTIES

Condition (at 20°C):	Liquid
Color:	Black
Odor:	Slight solvent odor
Boiling point:	124°C or higher
Vapor pressure Pa (°C):	: Less than 133(20)
apor density (at 20°C):	0.973±0.01
pH:	Not Applicable
Flash point:	65.1°C
Ignition point:	169°C
Flammable point:	1.7% to 33.0%
Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

Material	Control condensation	AGGIH (TLV)	IARC class	Other hazard
n-butyl acetate 150ppm		150ppm	-	(rat)LD:10768mg/kg
[Other hazard information on components]				
None [Other hazard information on product]				
Safety tests on products have not been made but abuse may cause liv and kidney trouble and skin dryness.			t abuse may cause liver	

12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

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.

Date: 07/07/07	SPC-0501K	D****
		Ver.0.8
		Page3/4

14. TRANSPORT INFORMATION

Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

15. REGULATORY INFORMATION

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable
Risk Phrases:	R10 Flammable.
	R66 Repeated exposure may cause skin dryness or cracking.
	R67 Vapours may cause drowsiness and dizziness.
Safety Phrases :	S25 Avoid contact with eyes.

17. OTHER INFORMATION

Use application: Ink for MIMAKI ink jet plotter

Caution: This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0501K	D****
		Ver.0.8
		Page4/4



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: S Company Identification	SS21 ink in cartri	dge, SPC-05	01Lc			
Manufacturer's Name / Su	upplier Address	Mimaki En	gineering	Co., L	td.	
		2182-3, Ots	0			
		Nagano 38	0		,	
		81-268-64-	•		2 3006	
Phone Number / Fax		Isao Tabay				
Contact Person		15d0 1 d0dy	asin (inks		lia Dept.)	
2. COMPOSITIO	N / INFORMA	TION ON	INGRED	IENT	S	
Hazardous components						
Chemical or common name	CAS		EINECSS		Concentration (%)	
Xylene	1330)-20-7	215-535-	-7	Less than 0.01	
Trimethellesses 125	100	(7, 9)	203-604-	4	(Specified chemical: PRTR) 0.01-0.1	
Trimethylbenzene - 1,3,5	108-	0/-8	203-004-	-4	(Specified chemical: PRTR)	
					(Specified chemical, FRTR)	
EU classification						
Chemical or common name	Class	sification		Indica	tion	
Xylene	R10-	·Xn;R20/21·X	Ki;R38	[Xn]·R20/21-10-38·S(2)-25		
Trimethylbenzene - 1,3,5		Xi;R37·N;R51		[Xi][N] ·R10-37-51/53·S(2)-61		
3. HAZARDS IDE	INTIFICATIO	N				
Classified name:	Flammable liqu	id acute toxi	c substanc	e		
Hazard comments:	Stagnant vapor			C		
Tubura commente.	May cause orga					
	• •	-	•	ny of th	ne following symptoms:	
	Dizziness, h					
	Slight anest	hesia				
	Irritation to	eyes, skin or	respirator	y tract		
4. FIRST AID ME	CASURE					
Eye:	Flush eyes with	n plenty of wa	ater for at l	east 1	5 minutes.	
	Consult a docto	or immediatel	y.			
Skin contact:	Immediately remove from skin with cloth.					
				and so	ap or skin detergent.	
	Do not use solv					
	Consult a docto					
Swallowing:	If swallowed, k			doctor	immediately.	
T 1 1 1	Keep from swal					
Inhalation:	If inhaled, immediately remove to fresh air and keep warm and calm. If breathing irregularly or not breathing, give artificial respiration. Keep from					
		•	breathing,	give ai	tificial respiration. Keep from	
	swallowing vor					
	Consult a docto		•	Frach a	ir, keep warm and calm and	
	consult a doctor			itesii a	n, ktep warm and cann and	
					Dagagaga 11 00	
Date: 07/07/07 SPC-0.	SUILC				D***** Ver.0.8	
					Page1/4	

5. FIRE FIGHTING MEASURES

Extinguishers:	CO ₂ , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

Storing precautions:	Use proper protection (gloves, masks, aprons, goggles, etc.) Handle in well-ventilated area. Prohibit use of fire, sparks or heat source. Ground equipment against electrostatics and use explosion-proof electric equipment. Use spark-proof tools. Keep used cloths, waste paints or spray dusts in water until disposal. Use local exhaust system and proper protection if working in closed area.
	Keep from sunlight.
	Store in well-ventilated area.
	Keep from open fire or heat source.
8. EXPOSURE CO	NTROLS / PERSONAL PROTECTION
Equipment:	Use explosion-proof handling equipment.
	Use exhaust system to prevent vapor build-up
	Ground transporting, scooping, agitating or other liquid handling equipment.
	Keep heat or fire sources from handling area.
	If working indoors, use automatic coating machine or other proper
	equipment to protect workers from direct exposure or use local exhaust
	system to protect workers from exposure.
Protective gear:	Eyes: Wear eye shields.
	Skin: Wear gloves that resist organic solvents and chemicals.
	Inhalation: Wear gas masks for organic gases. Wear ventilation masks when working in closed area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Date: 07/07/07 SPC-0501Lc



Condition (at 20°C):	Liquid
Color:	Light Cyan
Odor:	Slight solvent odor
Boiling point:	176°C or higher
Vapor pressure Pa (°C):	: Less than 133(20)
apor density (at 20°C):	0.972±0.01
pH:	Not Applicable
Flash point:	69.1°C
Ignition point:	169°C
Flammable point:	2.2% to 33.0%
Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

Material	Control cor	ndensation	AGGIH (TLV)	IARC class	Other hazard
Xylene Trimethylber	nzene - 1,3,5	100ppm 25ppm	100ppm 25ppm	3	(rat)LD:4300mg/kg (rat)LD:1303mg/kg

[Other hazard information on components]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Date: 07/07/07 SPC-0501Lc



Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

15. **REGULATORY INFORMATION**

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable, Xi Irritant, Xn Harmful, N Dangerous for			
Risk Phrases:	environment R10 Flammable. R20/R21 Harmful by inhalation and if swallowed. R37 Irritating to respiratory system. R38 Irritating to skin R51/53 Toxic to organisms,may cause long-term adverse effects in			
	the aquatic environment.			
Safety Phrases :	S25 Avoid contact with eyes.S61 Avoid release to the environment. Refer to special instruction/safety dada sheet.			

17. OTHER INFORMATION

Use application: Ink for MIMAKI ink jet plotter

Caution:

This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra

precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: SS21 ink in cartridge, SPC-0501Lm Company Identification						
Manufacturer's Name / Supplier Address Mimaki Engineering Co., Ltd.				1.		
				su, Shigeno, T		
				9-0512 Japan		····,
Dhama Maruhan / Ear			e	2413 / 81-268	8-62-	3996
Phone Number / Fax Contact Person				ashi (Inks & N		
Contact I cison			5	× ×		1 /
2. COMPOSITIC	N / INFOR	RMA'	TION ON	INGREDIE	NTS	5
Hazardous components						
Chemical or common name			S NO.	EINECSS NO	Э.	Concentration (%)
Propylene glycol monom	ethyl acetate	108	-65-6	203-603-9		1.0-10.0
						(Organic pigment)
EU classification						
Chemical or common name	•	Clas	sification	Ind	licati	on
Propylene glycol monometh	hyl acetate	R10-	·Xi;R36	[Xi	i]∙R1	0-36·S(2-)25
3. HAZARDS ID	ENTIFICA	TIO	N			
Classified name: Flammable liquid, acute toxic substance Hazard comments: Stagnant vapor may cause fire. May cause organic solvent poisoning. Do not inhale. Inhalation may cause any of the following symptoms: Dizziness, headache Slight anesthesia Irritation to eyes, skin or respiratory tract				e following symptoms:		
4. FIRST AID M	EASURE					
Eye:	Flush eyes	with	plenty of wa	ater for at least	t 15	minutes.
	Consult a	doctor	r immediatel	y.		
Skin contact:		•		kin with cloth.		
					l soaj	p or skin detergent.
			ent or thinne		Joron	aca ar acha
Swallowing:				hange of appe l consult a doc		
owallowing.			lowing vom			initionatory.
Inhalation:	If inhaled, breathing i swallowin Consult a	imme irregu g von doctor and fe	ediately reme larly or not l nit. r immediatel eeling sick, r	ove to fresh ai preathing, give y.	e arti	d keep warm and calm. If ificial respiration. Keep from , keep warm and calm and



5. FIRE FIGHTING MEASURES

Extinguishers:	CO ₂ , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

••		
	Use proper protection (gloves, masks, aprons, goggles, etc.) Handle in well-ventilated area. Prohibit use of fire, sparks or heat source. Ground equipment against electrostatics and use explosion-proof electric equipment. Use spark-proof tools. Keep used cloths, waste paints or spray dusts in water until disposal. Use local exhaust system and proper protection if working in closed area.	
Storing precautions:		
	Keep from sunlight. Store in well-ventilated area. Keep from open fire or heat source.	
8. EXPOSURE CO	NTROLS / PERSONAL PROTECTION	
Equipment:	Use explosion-proof handling equipment. Use exhaust system to prevent vapor build-up Ground transporting, scooping, agitating or other liquid handling equipment. Keep heat or fire sources from handling area. If working indoors, use automatic coating machine or other proper equipment to protect workers from direct exposure or use local exhaust system to protect workers from exposure.	
Protective gear:	 Eyes: Wear eye shields. Skin: Wear gloves that resist organic solvents and chemicals. Inhalation: Wear gas masks for organic gases. Wear ventilation masks when working in closed area. 	

9. PHYSICAL AND CHEMICAL PROPERTIES

Condition (at 20°C):	Liquid
Color:	Light Magenta
Odor:	Slight solvent odor
Boiling point:	124°C or higher
Vapor pressure Pa (°C):	: Less than 133(20)
apor density (at 20°C):	0.984 ± 0.01
pH:	Not Applicable
Flash point:	69.1°C
Ignition point:	169°C
Flammable point:	2.2% to 33.0%
Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Common:	Follow handling and storing precautions.
Land transport:	Follow legal requirements on transportation.
Marine transport:	Follow the Ship's Safety Law.
Air transport:	Follow the Aviation Law.

Мітакі

15. REGULATORY INFORMATION

Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:F Flammable, Xi IrritantRisk Phrases:R10 Flammable. R36 Irritating to eyes.Safety Phrases:S25 Avoid contact with eyes.

17. OTHER INFORMATION

Use application: Ink for MIMAKI ink jet plotter

Caution:

This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0501Lm	D*****	Ver.0.8
			Page4/4



1. PRODUCT AND COMPANY IDENTIFICATION

	roduct Name: SS21 ink in cartridge, SPC-0504W company Identification				
			Engineering Co., L	td	
				Itsu, Shigeno, Ton	
				89-0512 Japan	
			e	4-2413 / 81-268-6	2_3006
	e Number / Fax			ayashi (Inks & Me	
Cont	act Person		1540 1404		
2.	COMPOSITIO	N / INFORMA	TION ON	INGREDIENT	TS
	rdous components	~ . ~			~
	nical or common name	CAS		EINECSS NO.	Concentration (%)
TiO ₂	(IV)	Registe	ered	Registered	2.0-8.0
					(Organic solvent)
	lassification nical or common name	Class	ification	India	tion
	Applicable.	Class	meanon	Indication	
3.	HAZARDS IDE	NTIFICATIO	NT		
з.					
	Classified name:	Flammable liqui			
	Hazard comments: Stagnant vapor may cause fire.				
May cause organic solvent poisoning. Do not inhale. Inhalation may cause any of the following symptoms:			he following symptoms:		
		Dizziness, h		indy eduse any of a	ie following symptoms.
		Slight anest			
		Irritation to	eyes, skin o	or respiratory tract	
4.	FIRST AID ME	ASURE			
	Eye:	Flush eyes with	plenty of v	water for at least 1	5 minutes.
	•	Consult a docto			
	Skin contact: Immediately remove from skin with cloth.				
Flush thoroughly with plenty of water and soap or skin detergent.		oap or skin detergent.			
		Do not use solv			l
	Swallowing:			change of appearand consult a doctor	
	Swallowing.	Keep from swal			minediatery.
	Inhalation:	•	÷		nd keep warm and calm. If
		breathing irregu	larly or not		rtificial respiration. Keep from
		swallowing von			
		Consult a docto			
If inhaled and feeling sick, remove to fresh air, keep warm and calm a			ir, keep warm and calm and		
		consult a doctor	•		

5. FIRE FIGHTING MEASURES

Extinguishers:	CO ₂ , foam, powder, dry sand
Method:	Use proper protection (heat-resisting clothes, etc.).
	Promptly remove flammables.
	Never splash water.

6. ACCIDENTAL RELEASE MEASURES

Use proper protection (gloves, masks, aprons, goggles, etc.) If Collect spills in a sealing container and remove to safe place. Dispose of waste according to legal instructions. Promptly remove ignitable, hot, or flammable items. Prepare proper fire extinguishers for accidental ignition. Use plastic or other equipment to prevent sparks during recovery operation. Use dry sand, dirt or other nonflammable absorber. Avoid discharge to rivers and environmental effects.

7. HANDLING AND STORAGE

Handling precautions:

	Use proper protection (gloves, masks, aprons, goggles, etc.) Handle in well-ventilated area. Prohibit use of fire, sparks or heat source. Ground equipment against electrostatics and use explosion-proof electric equipment. Use spark-proof tools. Keep used cloths, waste paints or spray dusts in water until disposal. Use local exhaust system and proper protection if working in closed area.	
Storing precautions:		
	Keep from sunlight. Store in well-ventilated area. Keep from open fire or heat source.	
8. EXPOSURE CO	NTROLS / PERSONAL PROTECTION	
Equipment:	Use explosion-proof handling equipment.	
	Use exhaust system to prevent vapor build-up	
	Ground transporting, scooping, agitating or other liquid handling equipment.	
	Keep heat or fire sources from handling area.	
	If working indoors, use automatic coating machine or other proper	
	equipment to protect workers from direct exposure or use local exhaust	
	system to protect workers from exposure.	
Protective gear:	Eyes: Wear eye shields.	
	Skin: Wear gloves that resist organic solvents and chemicals.	
	Inhalation: Wear gas masks for organic gases. Wear ventilation masks when working in closed area.	

Date: 07/07/07 SPC-0504W



-		
	Condition (at 20°C):	Liquid
	Color:	White
	Odor:	Slight solvent odor
	Boiling point:	176°C or higher
	Vapor pressure Pa (°C)	: Less than 133(20)
	apor density (at 20°C):	1.012±0.01
	pH:	Not Applicable
	Flash point:	70.5°C
	Ignition point:	169°C
	Flammable point:	2.20% to 33.0%
	Others:	None

10. STABILITY AND REACTIVITY

Material of contact hazard: None.

Harmful gas from combustion: CO, low-molecular monomer or other harmful gases may occur. Other information on reactivity: No hazardous reactivity under standard conditions. Other information on hazards: None.

11. TOXICOLOGICAL INFORMATION

[Hazard and exposure condensation criteria] None

[Other hazard information on components]

None

[Other hazard information on product]

Safety tests on products have not been made but abuse may cause liver and kidney trouble and skin dryness.

12. BIOLOGICAL INFORMATION

Take cautions against environmental hazards from release or disposal.

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.

14. TRANSPORT INFORMATION

Common:Follow handling and storing precautions.Land transport:Follow legal requirements on transportation.Marine transport:Follow the Ship's Safety Law.Air transport:Follow the Aviation Law.

15. REGULATORY INFORMATION

Date: 07/07/07 SPC-0504W



Industrial Safety and Health Law: Dangerous article (flammable material) PRTR: Not Applicable Fire Defense Law: Hazardous material 4th category, 3rd Petroleum oil (Non-aqueous) Poisonous and Deleterious Substances Control Law: Not Applicable UN Number: Not Applicable

16. EU REGULATORY INFORMATION

EU Symbol:	F Flammable
Risk Phrases:	R10 Flammable.

17. OTHER INFORMATION

Use application: Ink for MIMAKI ink jet plotter

Caution: This MSDS is a concise assortment of information necessary for proper use of the Mimaki products. The MSDS reflects the latest documents, information and data available at the time of publication. However, assessment on risks and hazards may not be complete and extra precaution on use is highly recommendable. The MSDS is subject to change without notice due to revision of laws and/or new knowledge.

Date: 07/07/07	SPC-0504W	D*****	Ver.0.8
			Page4/4