

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
Xylene	1330-20-7	215-535-7	0.01-0.1 (Specified chemical: PRTR)
Trimethylbenzene - 1,3,5	108-67-8	203-604-4	0.1-0.5 (Specified chemical: PRTR)
Phthalocyanine blue	Registered	Registered	2.0-8.0 (Organic pigment)

#### EU classification

Chemical or common name	Classification	Indication
Xylene	R10·Xn;R20/21·Xi;R38	[Xn]·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

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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 <sub>2</sub> , 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

Condition (at 20°C): Liquid  
 Color: 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 condensation	AGGIH (TLV)	IARC class	Other hazard
Xylene	100ppm	100ppm	3	(rat)LD:4300mg/kg
Trimethylbenzene - 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

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 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 data 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.

End of MSDS

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
Propylene glycol monomethyl acetate	108-65-6	203-603-9	1.0-20.0 (Organic pigment)

#### EU classification

Chemical or common name	Classification	Indication
Propylene glycol monomethyl acetate	R10-Xi;R36	[Xi]-R10-36-S(2-)25

### 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

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<sub>2</sub>, 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

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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

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## 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

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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.

End of MSDS

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
Xylene	1330-20-7	215-535-7	0.01-0.1 (Specified chemical: PRTR)
Trimethylbenzene - 1,3,5	108-67-8	203-604-4	0.1-0.5 (Specified chemical: PRTR)
Nickel compound	Registered	Registered	2.0-8.0 (Specified chemical: PRTR)

#### EU classification

Chemical or common name	Classification	Indication
Xylene	R10·Xn;R20/21·Xi;R38	[Xn]·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

Date: 07/07/07 SPC-0501Y

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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 <sub>2</sub> , 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

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 condensation	AGGIH (TLV)	IARC class	Other hazard
Xylene	100ppm	100ppm		(rat)LD:4300mg/kg
Trimethylbenzene - 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

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, 2nd 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 data 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.

End of MSDS

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

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  
Phone Number / Fax 81-268-64-2413 / 81-268-62-3996  
Contact Person Isao Tabayashi (Inks & Media Dept.)

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
n-butyl acetate	123-86-4	204-658-1	2.0-4.0 (Organic solvent)
Carbon black	Registered	Registered	2.0-8.0 (Organic solvent)

#### EU classification

Chemical or common name	Classification	Indication
n-butyl acetate	R10-R66-R67	R:10-66-67-S(2-)25

### 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

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<sub>2</sub>, 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

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 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

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  
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 Nagano 389-0512 Japan  
 Phone Number / Fax 81-268-64-2413 / 81-268-62-3996  
 Contact Person Isao Tabayashi (Inks & Media Dept.)

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
Xylene	1330-20-7	215-535-7	Less than 0.01 (Specified chemical: PRTR)
Trimethylbenzene - 1,3,5	108-67-8	203-604-4	0.01-0.1 (Specified chemical: PRTR)

#### EU classification

Chemical or common name	Classification	Indication
Xylene	R10·Xn;R20/21·Xi;R38	[Xn]·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

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<sub>2</sub>, 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

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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)  
 Vapor 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

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## 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]

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

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[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

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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 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 data 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.

End of MSDS

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
Propylene glycol monomethyl acetate	108-65-6	203-603-9	1.0-10.0 (Organic pigment)

#### EU classification

Chemical or common name	Classification	Indication
Propylene glycol monomethyl acetate	R10-Xi;R36	[Xi]-R10-36-S(2-)25

### 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

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<sub>2</sub>, 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

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.

<b>15. REGULATORY INFORMATION</b>
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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

<b>16. EU REGULATORY INFORMATION</b>
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EU Symbol: F Flammable , Xi Irritant  
Risk Phrases: R10 Flammable. R36 Irritating to eyes.  
Safety Phrases: S25 Avoid contact with eyes.

<b>17. OTHER INFORMATION</b>
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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.

End of MSDS

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: SS21 ink in cartridge, SPC-0504W  
Company Identification  
Manufacturer's Name / Supplier Address Mimaki Engineering Co., Ltd.  
2182-3, Otsu, Shigeno, Tomishi,  
Nagano 389-0512 Japan  
Phone Number / Fax 81-268-64-2413 / 81-268-62-3996  
Contact Person Isao Tabayashi (Inks & Media Dept.)

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical or common name	CAS NO.	EINECSS NO.	Concentration (%)
TiO <sub>2</sub> (IV)	Registered	Registered	2.0-8.0 (Organic solvent)

#### EU classification

Chemical or common name	Classification	Indication
Not Applicable.		

### 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

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<sub>2</sub>, 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

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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

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## 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



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

<b>16. EU REGULATORY INFORMATION</b>
--------------------------------------

EU Symbol: F Flammable

Risk Phrases: R10 Flammable.

<b>17. OTHER INFORMATION</b>
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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.

End of MSDS