

Safety Data Sheets

1. Identification

Product Name : SS21 ink Light Black
Order No. : SPC-0501Lk/SPC-0588Lk
General Use : Ink for ink-jet printer
Product Description : Solvent pigment ink
SDS Number : 037-S080269
Manufacture
Company Name : Mimaki Engineering Co., Ltd.
Address : 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN
Telephone No. : +81-268-64-2413
Importer / Distributor Established in USA
Company Name : MIMAKI USA, INC.
Address : 150 Satellite Boulevard, suite A, Suwanee, Georgia 30024, U.S.A.
Telephone No. : +1-678-730-0100
Emergency Telephone No. : +81-268-64-2281

2. Hazards Identification

[GHS Classification]

Physical Hazards

Flammable Liquids : Category 4

Health Hazards

Acute Toxicity – Oral : Not classified
Acute Toxicity – Dermal : Not classified
Acute Toxicity – Inhalation : Not classified
Skin Corrosion / Irritation : Category 2
Eye Damage / Irritation : Category 2
Sensitization – Respiratory : Not classified
Sensitization – Skin : Not classified
Germ Cell Mutagenicity : Not classified
Carcinogenicity : Category 2
Toxic to Reproduction : Not classified
Specific Target Organ Toxicity : Category 2 (central nervous system)
(Single Exposure)

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Environmental Hazards

Hazardous to the Aquatic : Not classified

Environment - Long Term Hazard

The above list does not include category being non-classifiable or not-applicable.

[GHS Label Elements]

Symbol



Signal Word

Warning

Hazard Statements

- H227 Combustible liquid
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H351 Suspected of causing cancer
- H371 May cause damage to organs

Precautionary Statements

[Prevention]

- P201 Obtain SDS (Safety Data Sheet) and printer's manual instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- P321 Specific treatment (see 4-Response on our website/SDS
URL: www.mimaki.co.jp/msds).
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P370+P378 In case of fire: Use carbon dioxide, foam, dry chemical for extinguish.

[Storage]

- P403+P235 Store in a well-ventilated place. Keep cool.

[Disposal]

- P501 Dispose of contents/container in accordance with local / regional / national / international regulation (to be specified).

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HMIS Rating (scale 0 – 4)

Health = 1

Flammability = 1

Reactivity = 0

Protective Equipment =

①	Health
①	Flammability
①	Reactivity
○	Protective Equipment

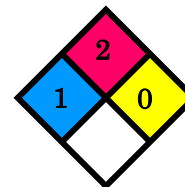
NFPA Rating (scale 0 – 4)

Health = 1

Flammability = 2

Instability = 0

Special =



3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.	Chemical Formula
1	Glycol ether	75-85	Trade Secret	Trade Secret
2	Lactone compound	10-20	Trade Secret	Trade Secret
3	Organic ingredients	1-5	Trade Secret	Trade Secret
4	Carbon Black	0.5-1.0	1333-86-4	Unspecified
5	Diol type inhibitor	0.1-1.0	Trade Secret	Trade Secret

4. First Aid Measures

Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, start artificial respiration at once. Call a POISON CENTER or doctor/physician.
Eye Contact	: Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get immediate medical attention.
Skin Contact	: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes before reuse.
Ingestion	: Call a POISON CENTER or doctor/physician if swallowed. Do not give anything by mouth to an unconscious person. Rinse mouth and then drink plenty of water.
Most Important Symptoms/ Effects	
Acute	: Skin irritation, eye irritation

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5. Fire Fighting Measures

Flammable Properties	: The harmful gas such as low molecule weight hydrocarbons or oxides of carbon occurs by combustion..
Flash point	: 64.7 °C
Ignition point	: Not available
Flammable point	: Not available
Extinguishing Media	: Suitable extinguishing media Carbon dioxide, regular dry chemical, foam
	: Unsuitable extinguishing media High-pressure water streams
Special Hazards Arising from the Chemical	: Combustible liquid and vapor.
Fire Fighting Instructions	Wear full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus). Move material from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Method and Materials for Containment and Cleaning UP

Stop leak if possible without personal risk. Collect spilled material in appropriate container for disposal.

Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry.

Water Spill: The material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

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7. Handling and Storage

- Handling**
- : Keep away from flames and hot surfaces. -No smoking.
 - Do not breathe vapor or mist.
 - Do not eat, drink, or smoke when using this product.
 - Avoid contact with eyes, skin and clothing.
 - Use non-sparking tools and equipment.
 - Wear protective gloves and eye/face protection.
 - Wash thoroughly after handling.
 - Avoid release to the environment.
- Storage**
- : Store in accordance with all current regulations and standards.
 - Store in a well-ventilated place. Keep cool.
 - Keep separated from incompatible substances.
 - Do not store with oxidizing materials, acids, combustible materials and reducing agents.

8. Exposure Controls / Personal Protection

Exposure Limit Values

No	Chemical Name		TWA	STEL	Ceiling	Skin	SEN
1	Carbon black (CAS No. 1333-86-4)	OSHA	3.5mg/m ³	N.E.	N.E.	N.E.	N.E.
		ACGIH	3.0mg/m ³ *1	N.E.	N.E.	N.E.	N.E.
		NIOSH	3.5mg/m ³ 0.1mg/m ³ *2	N.E.	N.E.	N.E.	N.E.
		Mexico	3.5mg/m ³ LMPE-PPT	7.0 mg/m ³ LMPE-CT			

*1: respirable fraction

*2: Carbon black in presence of Polycyclic aromatic hydrocarbon, as PAH

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Exposure Controls

Occupational Exposure Controls

Engineering Controls : Provide local exhaust ventilation system.
Ensure compliance with applicable exposure limits.

Personal Protection

Respiratory Protection



: An air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where air-borne concentrations are expected to exceed exposure limits.
Protection provided by air purifying respirators is limited.
Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or in any other circumstances where air-purifying respirators may not provide adequate protection.

Hand Protection



: Wear gloves that resist organic solvents and chemicals.

Eye Protection



: Wear coverall, chemical goggles and face shield when handling.

Skin Protection



: To prevent any contact, wear impervious clothing such as gloves, apron, boots, or whole body suits made from neoprene, as appropriate.

Environmental Exposure Controls

: Not available

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9. Physical and Chemical Properties

Appearance	- Physical State	: Liquid
	- Color	: Black
Odor		: Slight solvent odor
pH		: Not Applicable
Boiling Point / Boiling Range		: =>176°C
Melting Point / Melting Range		: Not available
Decomposition Temperature		: Not available
Flash Point		: 64.7°C
Auto ignition temperature		: Not available
Flammability (Solid, Gas)		: Not Applicable
Explosive Properties		: Not available
Upper / Lower Flammability or Explosive Limits		: Not available
Vapor Pressure		: Not available
Specific Gravity		: 0.97
Solubility		: Not Applicable
Water Solubility		: Not Applicable
Partition Coefficient (n-octanol / Water)		: Not Applicable
Viscosity		: Not available
Vapor Density		: Not Applicable
VOC		: 910 g/L

10. Stability and Reactivity

Reactivity	: No reactivity hazard is expected.
Conditions to Avoid	: Avoid heat, flames, sparks and other sources of ignition.
Stability	: Stable at standard temperatures and pressure.
Materials to Avoid	: Oxidizing materials, acids, combustible materials, reducing agents.
Hazardous Reactions	: Will not polymerize.
Decomposition Products	: Low molecular weight hydrocarbons, oxides of carbon

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11. Toxicological Information

Acute Toxicity	Chemical Name	LD50 (oral-rat)	LD50(dermal-rabbit)
	Glycol ether	6500mg/kg	7070mg/kg
	Lactone compound	1450mg/kg	
	Carbon Black	15400mg/kg	
Inhalation	: irritation, difficulty breathing		
Ingestion	: irritation, vomiting, diarrhea		
Skin Contact	: irritation		
Eye Contact	: irritation		
Immediate Effects	: skin irritation, eye irritation		
Delayed Effects	: Not available		
Medical Conditions Aggravated by Exposure	: respiratory disorders		
Irritation/Corrosivity Data	: skin irritation, eye irritation		
	Glycol ether: Primary Skin Irritation Index 2.5, The material was found to be moderately irritating.		
Respiratory Sensitization	: Not available		
Dermal Sensitization	: Not available		
Germ Cell Mutagenicity	: Not available		
	Glycol ether: No mutagenicity was observed (Ames test).		
Carcinogenicity	: Carbon Black(CAS No. 1333-86-4)		
	ACGIH: A3-Confirmed Animal Carcinogen with Unknown Relevance to Humans		
	NIOSH: Potential occupational carcinogen		
	IARC: Monograph 93[2010]; Monograph 65[1996] (Group 2B(possibly carcinogenic to humans))		
Reproductive Toxicity	: Not available		
Specific Target Organ Toxicity –Single Exposure	: Central nervous system		
Specific Target Organ Toxicity –Repeated Exposure	: Not available		
Aspiration Hazard	: Not available		

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12. Ecological Information

Handling is noted because it might influence the environment when leaking and abandoning it.

Especially, note that the product doesn't flow directly to ground, the river, and the drain ditch.

Ecotoxicity

: Carbon black

Invertebrate : EC50(24h) Daphnia magna: >5600mg/L

: Glycol ether

Fish Toxicity : LC50(96h) Fish(Cyprinus carpio): >200mg/L

Persistence and

: Not Available

Degradability

Bioaccumulative

: Not Available

Potential

Mobility

: Not Available

Other Adverse Effects

: Not Available

13. Disposal Considerations

Disposal Methods : Dispose in accordance with all applicable regulations.

Component Waste Numbers : The U.S. EPA has not published waste numbers for this product's components.

Disposal of Contaminated Packaging : Empty containers may contain product residue. Dispose in accordance with all applicable regulations.

Comply with all USA, national and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

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14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

Us Department of Transportation (DOT)

Shipping Name : Printing ink

UN Number : Not Applicable

Hazardous Materials : Not Applicable

Sea Transport (IMDG)

Proper Shipping Name : Printing ink

UN Number : Not Applicable

Marine Pollutant : No component of this material is specifically listed in the IMDG Code as an identified marine pollutant.

Air Transport (ICAO/IATA)

Proper Shipping Name : Printing ink

UN Number : Not Applicable

15. Regulatory Information

U.S. Federal Regulations : This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA(40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

SARA 311/312 : Acute Health Yes

(40 CFR 370) Chronic Health Yes

Fire Yes

Pressure No

Reactive No

California Proposition 65 : Not regulated

Others : Please refer to any other federal, state and local regulations.



Product Name: SS21 ink Light Black
SDS No.: 037-S080269
First issue: 2014/06/18
Revised:

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Canadian WHMIS : Components of this material have been checked against the
Ingredient Disclosure Canadian WHMIS Ingredients Disclosure List. The List is composed
List(IDL) of chemicals which must be identified on SDSs if they are included in
products which fall under WHMIS criteria specified in the Controlled
Products Regulations and present above the threshold limits listed
on the IDL.

Chemical Inventory Listings: Component Analysis -Inventory

Component	CAS No.	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Glycol ether	Trade Secret	Yes	NSL	EIN	No	No	Yes	No	Yes	No
Lactone compound	Trade Secret	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

16. Other Information

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Mimaki Engineering Corporation.

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

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