



Product Name: Dye Sublimation Ink Sb53

Blue

MSDS No.: 031-37W22BC

First issue: Dec 24, 2011

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Material Safety Data Sheets

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

1. Product and Company Identification

Product Name : Dye Sublimation Ink Sb53 Blue
Product Code : SB53-BL-44-1/ SB53-BL- 2 L -1
General Use : Ink jet printing ink
Product Description : Dye Sublimation Ink
MSDS Number : 031-37W22BC
Manufacture
Company Name : Mimaki Engineering Co., Ltd
Address : 2182-3 Otsu, Shigeno, 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. : +81-268-64-2413

2. Hazards Identification

WARNING!

Emergency Overview : May be harmful if swallowed or if inhaled
May cause adverse kidney effects
Mist or aerosol may be irritating to eyes, nose, throat, and lungs
Contains a known or suspected mutagen
Appearance : Blue
Physical State : Liquid
Odor : Specific
Potential Health Effects
Principle Routes of Exposure : Inhalation. Skin contact. Eye contact.
Acute Toxicity
Eyes : May cause slight irritation.
Skin : May cause skin irritation and/or dermatitis.
Inhalation : May be harmful if inhaled. Inhalation of aerosols: May cause irritation.
Ingestion : May be harmful if swallowed.



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Chronic Effects : May cause adverse kidney effects. Contains a known or suspected mutagen.

Aggravated Medical Conditions : Kidney disorders. Respiratory disorders.

Environmental Hazard : See Section 12 for additional Ecological Information.

3. Composition / Information On Ingredients

SUBSTANCE/MIXTURE : Mixture

No	Chemical Name	Wt%	CAS No.	Chemical Formula
1	Propylene glycol	10-40	57-55-6	C ₃ H ₈ O ₂
2	Glycerol	1-20	56-81-5	C ₃ H ₈ O ₃
3	Disperse dye	1-15	Trade Secret	Trade Secret
4	Water	30-60	7732-18-5	H ₂ O
5	Additives	<5	Trade Secret	Trade Secret

OSHA Hazardous : Not hazardous.

Components

(29 CFR 1910.1200)

4. First Aid Measures

General Advice : If symptoms persist, call a physician.

Eye Contact : Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact : Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing has stopped, contact emergency medical services immediately.

Ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting.
Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Notes to Physician : Treat symptomatically.

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5. Fire Fighting Measures

Flammable Properties : Combustible material: may burn but does not ignite readily.

Flash Point : Not determined.

Suitable Extinguishing : Use extinguishing measures that are appropriate to local

Media circumstances and the surrounding environment.

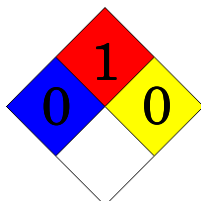
Explosion Data

Sensitivity to Mechanical Impact : None

Sensitivity to Static Discharge : None

Protective Equipment and : As in any fire, wear self-contained breathing apparatus
Precautions for Firefighters pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	HMIS
Health Hazard : 0 Flammability : 1 Instability : 0 Physical and Chemical Hazards : -	Health Hazard : 1* Flammability : 1 Physical Hazard : 0 Personal Protection : -



HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

6. Accidental Release Measures

Personal Precautions : Wear protective gloves/clothing and eye/face protection. Ensure adequate ventilation. Avoid contact with the skin and the eyes.

Environmental Precautions : Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

Methods for Containment : Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up : For spills: Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal. Place in appropriate chemical waste container.

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7. Handling And Storage

Handling : Handle in accordance with good industrial hygiene and safety practice.
Wear personal protective equipment. Avoid breathing vapors or mists.
Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.

Storage : Keep container tightly closed in a dry and well-ventilated place.

8. Exposure Controls / Personal Protection

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol CAS No 56-81-5	TWA: 10 mg/m ³ mist	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction (vacated)	-

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits.

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value.

Other Exposure Guidelines : Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures : Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection : Safety glasses with side-shields.



Skin and Body : Wear protective gloves/clothing.

Protection



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Respiratory Protection : If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.



Hygiene Measures : Handle in accordance with good industrial hygiene and safety practice.

9. Physical And Chemical Properties

Appearance	- Physical state	: Liquid
	- Color	: Blue
Odor		: Specific
Odor Threshold		: No information available.
pH		: 6-8
Boiling Point / Boiling Range		: No information available.
Melting Point / Melting Range		: No information available.
Decomposition Temperature		: No information available.
Flash Point		: No information available.
Autoignition Temperature		: No information available.
Flammability Limits in Air		: No information available.
Explosion Limits		: No information available.
Vapor Pressure		: No data available
Specific Gravity		: 1.0-1.2(25 degree C)
Solubility		: No information available.
Water solubility		: Soluble in water
Viscosity		: 3-6mPa.s(25 degree C)
Vapor Density		: No data available
Evaporation Rate		: No information available
VOC Content (%)		: 30-50



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10. Stability And Reactivity

Conditions to Avoid	: Excessive heat.
Stability	: Stable under recommended storage conditions.
Incompatible Products	: Strong oxidizing agents. Alkalies. Acid anhydrides. Halogens.
Hazardous	: Sulfur oxides. Nitrogen oxides (NO _x). Carbon dioxide (CO ₂) Carbon
Decomposition Products	monoxide (CO).
Hazardous	: Hazardous polymerization does not occur.
Polymerization	

11. Toxicological Information

Acute Toxicity

Product Information	: May be harmful if swallowed. May be harmful by inhalation. Mist or aerosol may be irritating to eyes, nose, throat, and lungs. May cause eye and skin irritation.
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Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Disperse dye	5 g/kg (Rat)	-	-
Propylene glycol	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-
Glycerol	12600 mg/kg (Rat)	21900 mg/kg (Rat)	570 mg/m ³ (Rat) 1 h
Additives	1020 mg/kg (Rat)	-	-

Chronic Toxicity

Chronic Toxicity	: May cause adverse kidney effects. Contains a known or suspected mutagen.
Target Organ Effects	: Kidney. Respiratory system.

12. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated.



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Chemical Name		
Propylene glycol	Toxicity to Algae	= 19000 mg/L: EC50 96 h (Pseudokirchneriella subcapitata)
	Toxicity to Fish	41 - 47 mL/L: LC50 96 h static (Oncorhynchus mykiss) = 51400 mg/L: LC50 96 h static (Pimephales promelas) = 51600 mg/L: LC50 96 h static (Oncorhynchus mykiss) = 710 mg/L: LC50 96 h (Pimephales promelas)
	Toxicity to Microorganisms	EC50 = 710 mg/L 30 min
	Daphnia Magna (Water Flea)	> 1000 mg/L: EC50 48 h Static (Daphnia magna) > 10000 mg/L: EC50 24 h (Daphnia magna)
Glycerol	Toxicity to Fish	LC50: 51-57 ml/L Oncorhynchus mykiss 96 h static
	Daphnia Magna (Water Flea)	EC50: >500 mg/L Daphnia magna 24 h

Chemical Name	Log Pow
Glycerol	-1.76
Additives	1.3

13. Disposal Considerations

Waste Disposal Methods : This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging : Do not re-use empty containers.

14. Transport Information



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DOT : Not regulated

TDG : Not regulated

MEX : Not regulated

ICAO : Not regulated

IATA : Not regulated

IMDG/IMO : Not regulated

RID : Not regulated

ADR : Not regulated

ADN : Not regulated

UN No.: Not regulated

15. Regulatory Information

International Inventories

TSCA : All components are listed on the TSCA Inventory.

DSL :Additives Does not comply

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard : No

Chronic Health Hazard : Yes

Fire Hazard : No

Sudden Release of Pressure Hazard : No

Reactive Hazard : No

Clean Water Act



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This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65 : This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Propylene glycol	X	-	X	-	X
Glycerol	X	X	X	-	X

International Regulations

Canada : This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class : D2A Very toxic materials



16. Other Information

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or



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in any process, unless specified in the text.

Revision history

Version	Date	Content
0.1	Dec 24, 2011	First issue.