

Safety Data Sheets

*****Section 1 - IDENTIFICATION*******Product Identifier: BS4 ink Yellow****Product Description**

BS4-Y-60 / BS4-Y-2L

Product Use

Pigment ink for ink jet printer.

Restrictions on Use

None known.

Manufacturer InformationMimaki Engineering Co., Ltd
2182-3 Shigeno-otsu, Tomi-shi, Nagano
389-0512 Japan

Telephone number: +81-268-64-2413

Importer / Distributor InformationMIMAKI SINGAPORE PTE. LTD.
31 Kaki Bukit Road 3 Singapore 417818 TechLink #02-03

Telephone number: +65-6508-2789

Emergency telephone number+65 3165 2217 (within Singapore only)
+65 3158 1074*****Section 2 - HAZARDS IDENTIFICATION*******SPRING/SS 586-2:2014**

Serious Eye Damage/Eye Irritation, Category 2A

Specific Target Organ Toxicity - Single Exposure, Category 2 (central nervous system)

LABEL ELEMENTS**Symbol(s)****Signal Word**

WARNING

Hazard Statement(s)**H319** Causes serious eye irritation.**H371** May cause damage to central nervous system.**Precautionary Statement(s)****Prevention****P260** Do not breathe dust/fume/gas/mist/vapours/spray. **P270** Do not eat, drink or smoke when using this product.**P280** Wear protective gloves/protective clothing/eye protection/face protection. **P264** Wash thoroughly after handling.**Response**

Safety Data Sheets

P308+P313 IF exposed or concerned: Get medical advice/attention. **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **P337+P313** If eye irritation persists: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards Which Do Not Result in Classification

None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
Trade Secret	Glycol ether solvents	70-80
96-48-0	γ -Butyrolactone	10-20
Trade Secret	Additive 2	0.1-5
Trade Secret	Additive 1	0.1-5
Trade Secret	Azo nickel pigment	1-10
Trade Secret	Acrylic Type Compound	1-10
Trade Secret	Chlorinated Ethylene-Vinyl Acetate Copolymer (CEVA)	1-10

Contaminants

The chemical identity and/or percentage of composition is being withheld as a trade secret.

Section 4 - FIRST AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

Skin

Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. Get medical attention if irritation develops.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

Ingestion

If swallowed, get medical attention.

Antidote

Treat symptomatically and supportively.

Symptoms: Immediate

eye irritation, central nervous system damage

Symptoms: Delayed

No information on significant adverse effects.

Section 5 - FIRE FIGHTING MEASURES

Flammable Properties

Combustible liquid and vapor.

Extinguishing Media

carbon dioxide, regular dry chemical, water spray, alcohol resistant foam

Unsuitable Extinguishing Media

Safety Data Sheets

Do not scatter spilled material with high-pressure water streams.

Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Move container 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 away from the ends of tanks. Avoid inhalation of material or combustion by-products. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

Hazardous Combustion Products

Combustion: oxides of carbon, oxides of nitrogen

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear personal protective clothing and equipment, see Section 8.

Environmental Precautions

Avoid release to the environment.

Methods for Containment

Eliminate all ignition sources if safe to do so. Stop leak if possible without personal risk. Reduce vapors with water spray. Move containers away from spill to a safe area. Keep unnecessary people away, isolate hazard area and deny entry.

Cleanup Methods

Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. **Large spills:** Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Do not breathe vapor or mist. Do not eat, drink, or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling.

Conditions for Safe Storage

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Grounding and bonding required. Store locked up. Keep separated from incompatible substances. Incompatible materials include acids, bases, oxidizing materials, and halogens.

Incompatibilities: acids, bases, oxidizing materials, halogens

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Singapore and ACGIH have not developed exposure limits for any of this product's components.

Biological exposure limits

There are no biological limit values for any of this product's components.

Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Safety Data Sheets

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Respiratory Protection

Consult with a health and safety professional for specific respirators appropriate for your use.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Liquid	Appearance:	yellow liquid
Color:	yellow	Physical Form:	liquid
Odor:	solvent odor	Odor Threshold:	Not available
pH:	Not available	Melting Point:	Not available
Boiling Point:	Not available	Flash Point:	70 °C
Decomposition Temperature:	Not available	Evaporation Rate:	Not available
LEL:	2.5 vol % (Glycol ether type solvent)	UEL:	33.0 vol % (Glycol ether type solvent)
Vapor Pressure:	<=0.1 kPa	Vapor Density (air = 1):	Not available
Density:	0.971 g/cm3	Specific Gravity (water = 1):	Not available
Water Solubility:	Not available	Log KOW:	Not available
Coeff. Water/Oil Dist:	Not available	Auto Ignition Temperature:	169 °C (Glycol ether type solvent)
Viscosity:	4.0-4.5 mPa/s @25 °C	Volatility:	Not available
Oxidizing Properties:	Not available	Explosive Properties:	Not available
Flammability (solid, gas):	Not applicable		

Other Property Information

No additional information is available.

* * *Section 10 - STABILITY AND REACTIVITY* * *

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid flames, sparks, and other sources of ignition. Containers may rupture or explode if exposed to heat. Avoid contact with incompatible materials.

Materials to Avoid (Incompatibilities)

acids, bases, oxidizing materials, halogens

Safety Data Sheets

Hazardous Decomposition:

Combustion: oxides of carbon, oxides of nitrogen

*****Section 11 - TOXICOLOGICAL INFORMATION*******Acute and Chronic Toxicity****Component Analysis - LD50/LC50**

The component(s) of this material have been reviewed in various sources and the following selected endpoints are published:

Glycol ether solvents (Trade Secret)

Oral LD50 Rat 6500 µL/kg

γ-Butyrolactone (96-48-0)

Oral LD50 Rat 1540 mg/kg; Inhalation LC50 Rat >5100 mg/m³ 4 h

Additive 2 (Trade Secret)

Oral LD50 Rat 40 g/kg; Dermal LD50 Rabbit >20 mL/kg

Immediate Effects

eye irritation, central nervous system damage

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

eye irritation

Respiratory Sensitizer

No information available for the product.

Dermal Sensitizer

No information available for the product.

Carcinogenicity**Component Carcinogenicity****γ-Butyrolactone (96-48-0)**

IARC: Monograph 71 [1999]; Supplement 7 [1987]; Monograph 11 [1976] (Group 3 (not classifiable))

Chlorinated Ethylene-Vinyl Acetate Copolymer (CEVA) (Trade Secret)

IARC: Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable))

Mutagenic Data

No information available for the product.

Reproductive Effects Data

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

central nervous system

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No information available for the product.

*****Section 12 - ECOLOGICAL INFORMATION*******Ecotoxicity**

Components of this product are hazardous to aquatic life.

Component Analysis - Aquatic Toxicity

Safety Data Sheets

γ-Butyrolactone (96-48-0)

Algae: 72 Hr EC50 Desmodesmus subspicatus: 360 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 79 mg/L

Invertebrate: 48 Hr EC50 Daphnia magna Straus: >500 mg/L

Additive 2 (Trade Secret)

Algae: 72 Hr EC50 Desmodesmus subspicatus: 8 mg/L

Bioaccumulation

No information available for the product.

Bioconcentration

No information available for the product.

Biodegradation

No information available for the product.

Mobility

No information available for the product.

Other Information

No additional information is available.

*****Section 13 - DISPOSAL CONSIDERATIONS*****

Disposal Methods

Empty containers may contain product residue. Dispose in accordance with all applicable regulations.

Component Waste Information

There is no applicable waste information for this product's components.

*****Section 14 - TRANSPORT INFORMATION*****

IATA Information

Not regulated as dangerous goods for transport.

ICAO Information

Not regulated as dangerous goods for transport.

IMDG Information

Not regulated as dangerous goods for transport.

Marine Pollutant

γ-Butyrolactone (96-48-0)

IBC Code: Category Y

*****Section 15 - REGULATORY INFORMATION*****

Singapore Regulations

Component Analysis

No information was found for the substance(s) in Singapore regulations.

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Glycol ether solvents	Trade Secret	Yes	NSL	EIN	No	No	Yes	No	Yes	Yes
γ-Butyrolactone	96-48-0	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Additive 2	Trade Secret	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Azo nickel pigment	Trade Secret	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Chlorinated Ethylene-Vinyl Acetate Copolymer (CEVA)	Trade Secret	Yes	DSL	No	Yes	Yes	Yes	Yes	Yes	Yes

*****Section 16 - OTHER INFORMATION*****

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; CAS - Chemical Abstracts Service; CLP - Classification, Labelling and Packaging; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; IBC Code - International Bulk Chemical Code; Kow - Octanol/water partition coefficient; LC50 - Lethal Concentration, 50%; LD50 - Lethal Dose, 50%; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NTP = National Toxicology Program; REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - European Rail Transport; STEL - Short-term Exposure Limit; TWA - Time Weighted Average; UEL - Upper Explosive Limit

Disclaimer

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.

End of Sheet 037-S181728