* * *Section 1 - IDENTIFICATION* * *

Product Identifier: Dye Sublimation Ink Sb411 Black T

Product Description

SB411-KT-2L-5 / SB411-KT-BJ-5

Product Use

Ink jet ink

Restrictions on Use

None known.

Manufacturer Information

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

Telephone number: +81-268-64-2413

Importer / Distributor Information

MIMAKI 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

Sensitization – Skin, Category 1
Specific Target Organ Toxicity (Single Exposure), Category 1 (central nervous system, blood system)
Specific Target Organ Toxicity (Repeated Exposure), Category 1 (central nervous system, respiratory system)

LABEL ELEMENTS

Symbol(s)



Signal Word

DANGER

Hazard Statement(s)

H317 May cause an allergic skin reaction
H370 Causes damage to organs (central nervous system, blood system)
H372 Causes damage to organs through prolonged or repeated exposure (central nervous system, respiratory system)

Precautionary Statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash before reuse.
P308+P311 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

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
7732-18-5	Water	55-65
57-55-6	1,2-Propylene glycol	10-20
Trade Secret	Other	<10
56-81-5	Glycerin	5-15
Trade Secret	Painting material	1-10
Not Available	Preservative	<0.5

* * *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. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.

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.

Note to Physicians

Treat symptomatically and supportively.

Symptoms: Immediate

allergic skin reaction, central nervous system disorders, blood system disorders

Symptoms: Delayed

allergic skin reaction, central nervous system disorders, respiratory system disorders

* * *Section 5 - FIRE FIGHTING MEASURES* * *

Flammable Properties

Negligible fire hazard.

Extinguishing Media

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

Unsuitable Extinguishing Media

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.

Hazardous Combustion Products

Combustion: oxides of carbon, acrolein, oxides of sulfur

* * *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.

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

Avoid breathing dust, mist, fumes or vapors. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

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. Keep separated from incompatible substances.

Incompatibilities: acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

Glycerin (56-81-5)

Singapore: 10 mg/m3 PEL (mist)

Biological exposure limits

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

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

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:**	black liquid
Color:	black	**Physical Form:**	liquid
Odor:	characteristic odor	**Odor Threshold:**	Not available
pH:	7-9	**Melting Point:**	Not available
Boiling Point:	Not available	**Flash Point:**	Not flammable
Decomposition Temperature:	Not available	**Evaporation Rate:**	Not available
LEL:	Not available	**UEL:**	Not available
Vapor Pressure:	Not available	**Vapor Density (air = 1):**	Not available
Density:	Not available	**Specific Gravity (water = 1):**	1-1.2 (25 °C)
Water Solubility:	Easily soluble	**Log KOW:**	Not available
Coeff. Water/Oil Dist:	Not available	**Auto Ignition Temperature:**	Not available
Viscosity:	4-6 mPas (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. Avoid contact with incompatible materials.

Materials to Avoid (Incompatibilities)

acids, bases, oxidizing materials, metal oxides, peroxides, reducing agents, combustible materials, halocarbons, metals, metal salts

Hazardous Decomposition:

Combustion: oxides of carbon, acrolein, oxides of sulfur

* * *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:

1,2-Propylene glycol (57-55-6)

Oral LD50 Rat 20 g/kg; Dermal LD50 Rabbit 20800 mg/kg

Glycerin (56-81-5)

Oral LD50 Rat 12600 mg/kg; Dermal LD50 Rabbit >10 g/kg; Inhalation LC50 Rat >570 mg/m3 1 h

Immediate Effects

allergic skin reaction, central nervous system disorders, blood system disorders

Delayed Effects

allergic skin reaction, central nervous system disorders, respiratory system disorders

Irritation/Corrosivity Data

mild skin irritation, eye irritation

Respiratory Sensitizer

No information available for the product.

Dermal Sensitizer

May cause an allergic skin reaction.

Carcinogenicity

Component Carcinogenicity

No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for the component(s) of this product.

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 disorders, blood system disorders

Specific Target Organ Toxicity - Repeated Exposure

central nervous system disorders, respiratory system disorders

Aspiration Hazard

Not expected to be an aspiration hazard.

Medical Conditions Aggravated by Exposure

No information available for the product.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity

Component Analysis - Aquatic Toxicity

1,2-Propylene glycol (57-55-6)

Fish: 96 Hr LC50 Oncorhynchus mykiss: 51600 mg/L [static]; 96 Hr LC50

Oncorhynchus mykiss: 41 - 47 mL/L [static]; 96 Hr LC50 Pimephales promelas: 51400 mg/L [static]; 96 Hr LC50 Pimephales promelas: 710 mg/L

Algae: 96 Hr EC50 Pseudokirchneriella subcapitata: 19000 mg/L

Invertebrate: 48 Hr EC50 Daphnia magna: >1000 mg/L [Static]

Glycerin (56-81-5)

Fish: 96 Hr LC50 Oncorhynchus mykiss: 51 - 57 mL/L [static]

Bioaccumulation

No information available for the product.

Bioconcentration

No information available for the product.

Biodegradation

No information available for the product.

Persistence

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

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

1,2-Propylene glycol (57-55-6)

IBC Code: Category Z

* * *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
Water	7732-18-5	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
1,2-Propylene glycol	57-55-6	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Glycerin	56-81-5	Yes	DSL	EIN	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.