

Safety Data Sheets

1. Identification

Due du et Neure	: Deer Carbling stiens Inde Ch 411 Die als T
Product Name	: Dye Sublimation Ink Sb411 Black T
Order No.	: SB411-KT-2L / SB411-KT-BJ
Ink Ver	: 5
General Use	: Ink jet printing ink
Product Description	: Dye Sublimation Ink
SDS Number	:037-W485401
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 Esta	blished in USA
Company Name	: MIMAKI USA, INC.
Address	: 150 Satellite Boulevard NE , suite A, Suwanee, Georgia 30024,
	U.S.A.
Telephone No.	: +1-678-730-0170
Emergency Telephone No.	: +1 866 928 0789 (within United States only, Toll free)
	$+1\ 215\ 207\ 0061$

2. Hazards Identification

[GHS Classification]	
Physical Hazards	
Flammable Liquids	: Not classified
Health Hazards	
Eye Damage / Irritation	: Category 2
Sensitization - Skin	Category 1

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

[GHS Label Elements] Symbol





Signal Word Warning Hazard Statements H317 May cause an allergic skin reaction H319 Causes serious eye irritation **Precautionary Statements** [Prevention] P261 Avoid breathing gas/mist/vapors. P264 Wash hands thoroughly after handling. 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. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash before reuse. [Disposal] P501 Dispose of contents/container in accordance with local/regional/national/ international regulation (to be specified).

NFPA Rating (scale 0-4)

Health = 2

Flammability = 1 Instability = 0

Special =



CANADIAN WHMIS SYMBOLS

D2B



3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Propylene glycol	10-20	57-55-6
2	Glycerin	5 - 15	56-81-5
3	Dye	1-10	Trade Secret
4	Water	55-65	7732-18-5
5	Other	<10	Trade Secret



4. First Aid Measures		
Inhalation	Remove person to fresh air and keep comfortable for breathing. 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. Continue rinsing.	
	Get immediate medical attention.	
Skin Contact	: Wash with plenty of soap and water. Take off contaminated clothing	
	and wash before re-use. If skin irritation or rash occurs: Get medical	
	advice/attention.	
Ingestion	: If swallowed, get medical attention.	
Most Important Symptom	s/Effects	
Acute	allergic skin reaction, mild skin irritation, eye irritation	
Delayed	allergic skin reaction	
Indication of Immediate	: Treat symptomatically and supportively.	
Medical Attention and		
Special Treatment		
Needed, If Needed		

5. Fire Fighting Measures

Flammable Properties	: Flash point Not flammable
Extinguishing Media	: carbon dioxide, regular dry chemical, water spray, alcohol resistant
	foam
Unsuitable Extinguishing	: Do not scatter spilled material with high-pressure water streams.
Media	
Special Hazards Arising	: Negligible fire hazard.
from the Chemical	
Hazardous Combustion	: oxides of carbon, acrolein, oxides of sulfur
Products	
Fire Fighting	: Move container from fire area if it can be done without risk. Do not
Measures	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.

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Special Protective	: Wear full protective fire fighting gear including self contained
Equipment and	breathing apparatus (SCBA) for protection against possible
Precautions for	exposure.
Firefighters	

6. Accidental Release Measures

Personal Precautions,	: Wear personal protective clothing and equipment, see Section 8.
Protective Equipment	Avoid release to the environment.
and Emergency	
Procedures	
Methods and Materials	: Eliminate all ignition sources if safe to do so. Stop leak if possible
for Containment and	without personal risk. Reduce vapors with water spray.
Cleaning Up	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.

7. Handling and Storage

Precautions for Safe	Avoid breathing gas, mist or vapors. Avoid contact with eyes, skin and
Handling	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	Store and handle in accordance with all current regulations and
Storage, including any	standards. Store in a well-ventilated place. Keep container tightly
Incompatibilities	closed. Keep cool. Keep separated from incompatible substances.



8. Exposure Controls / Personal Protection

Exposure Limit Values	: Glycerin (56-81-5)
	OSHA: 15 mg/m ³ TWA (mist, total particulate);
	5 mg/m ³ TWA (mist, respirable fraction)
	Mexico 10 mg/m ³ TWA LMPE-PPT (mist)
Component Biological	: There are no biological limit values for the component(s) of this
Limit Values	product.
Exposure Controls	
Occupational Exposure	Controls
Appropriate	\div Provide local exhaust or process enclosure ventilation system. Ensure
Engineering Controls	compliance with applicable exposure limits.
Personal Protection	
Respiratory	\vdots Consult with a health and safety professional for specific respirators
Protection	appropriate for your use.
Vapor Respirator	
Hand Protection	: Wear appropriate chemical resistant gloves.
Gloves	
Eye Protection	: Wear splash resistant safety goggles with a faceshield. Provide an
Safety Glasses	emergency eye wash fountain and quick drench shower in the immediate work area.
Skin Protection	: Wear appropriate chemical resistant clothing.
Apron	



9. Physical and Chemical Properties

· Color: BlackOdor: unique odorpH: 7-9Boiling Point / Boiling Range: Not availableMelting Point / Melting Range: Not availableDecomposition Temperature: Not availableFlash Point: Not flammableAuto ignition temperature: Not availableFlammability (Solid, Gas): Not availableExplosive Properties: Not availableOxidizing Properties: Not availableUpper / Lower Flammability or: Not available
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Explosive Properties: Not availableOxidizing Properties: Not available
Oxidizing Properties : Not available
Uppor / Lower Flammability or
Opper / Lower Frannability of · Not available
Explosive Limits
Vapor Pressure
Specific Gravity $\therefore 1.0-1.2 (25 \degree C)$
Solubility : Not available
Water Solubility : Soluble
Partition Coefficient (n-octanol / Water) : Not available
Viscosity $: 4-6 \text{ mPa} \cdot \text{s} (25 \text{ °C})$
Vapor Density : Not available
Evaporation Rate : Not available

10. Stability and Reactivity

Reactivity	: No reactivity hazard is expected.
Chemical Stability	: Stable under normal conditions of use.
Possibility of Hazardous	: Will not polymerize.
Reactions	
Conditions to Avoid	Avoid flames, sparks, and other sources of ignition. Avoid contact
	with incompatible materials.
Incompatible Materials	: acids, bases, oxidizing materials, metal oxides, peroxides, reducing
	agents, combustible materials, halocarbons, metals, metal salts

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Hazardous : Combustion: oxides of carbon, acrolein, oxides of sulfur

Decomposition

11. Toxicological Information

Acute Toxicity	: The component(s) of this material have been reviewed in various
Component Analysis -	sources and the following selected endpoints are published:
LD50/LC50	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/m 3 1 h

Information on Likely Routes of Exposure

Inhalation	: irritation, difficulty breathing, headache, nausea
Ingestion	: fever, nausea, vomiting, diarrhea, headache, dizziness, sleep
	disturbances, blood disorders, kidney damage, paralysis, reproductive
	effects, convulsions, skin disorders, stomach pain, drowsiness, loss of
	coordination, unconsciousness
Skin Contact	: allergic reactions, irritation, nausea, headache, drowsiness, dizziness,
	loss of coordination
Eye Contact	: irritation
Immediate Effects	allergic skin reaction, mild skin irritation, eye irritation
Delayed Effects	allergic skin reaction
Medical Conditions	: No information available for the product.
Aggravated by Exposure	
Irritation/Corrosivity	: mild skin irritation, eye irritation
Data	
Respiratory	: No information available for the product.
Sensitization	
Dermal Sensitization	: May cause an allergic skin reaction.
Germ Cell Mutagenicity	: No information available for the product.
Carcinogenicity	: Component Carcinogenicity
	No data listed by ACGIH, IARC, NTP, DFG or OSHA is available for
	the component(s) of this product.
Reproductive Toxicity	: No information available for the product.



Specific Target Organ	: No target organs identified.
Toxicity - Single	
Exposure	
Specific Target Organ	: No target organs identified.
Toxicity - Repeated	
Exposure	
Aspiration Hazard	: Not expected to be an aspiration hazard.

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.					
Component Analysis -	: Propylene glycol (57-55-6)					
Aquatic Toxicity	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]					
Persistence and	: No information available for the product.					
Degradability						
Bioaccumulation	: No information available for the product.					
Mobility	: No information available for the product.					
Other Toxicity	: No additional information is available.					

13. Disposal Considerations

	: Comply with all USA, national and local regulations.
	Do not dump this product into sewers, on the ground or into any body
	of water.
Disposal Methods	: Dispose in accordance with all applicable regulations.



Component Waste	: The U.S. EPA has not published waste numbers for this product's
Numbers	components.
Disposal of	: Empty containers may contain product residue. Dispose in
Contaminated	accordance with all applicable regulations.
Packaging	

14. Transport Information

	Check a thing without a leak in a container.
	Perform prevention of collapse of cargo surely.
US DOT Information	: Not regulated as a hazardous material for transport.
TDG Information	: Not regulated as dangerous goods for transport.
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 Pollutants	: Not regulated as dangerous goods for transport.
(IMDG)	
International Bulk	: This material does not contain any chemicals required by the IBC
Chemical Code	Code to be identified as dangerous chemicals in bulk.

15. Regulatory Information

U.S. Federal	: None of this products components are listed under SARA Sections
Regulations	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), or require an OSHA process safety plan.
SARA TitleIII	: Acute Health: Yes
Section 311/312	Chronic Health: No
	Fire: No
	Pressure: No
	Reactive: No

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U.S. State Regulations	[:] The following components appear on one or more of the following									
state hazardous substances lists										
	Component CA MA MN NJ PA									
	Propylene glycol	No	Na	Vag	Vee	Var				
	(CAS No. 57-55-6)	Glycerin		Yes	Yes	Yes				
	Glycerin			V. V.	V7.	V				
	(CAS No. 56-81-5)	No	Yes	Yes	Yes	Yes				
	Not regulated under California Proposition 65									
Canada WHMIS	: D2B.									
CLASSIFICATION										
Canadian WHMIS	: Components of this ma	terial	have l	been cl	necked	agains	t the			
Ingredient Disclosure	Canadian WHMIS Ingredients Disclosure List. The List is composed of						is composed of			
List (IDL)	chemicals which must be identified on MSDSs if they are included in									
	products which fall under WHMIS criteria specified in the Controlle									
	Products Regulations and present above the threshold limits listed on									
	the IDL.									
	Propylene glycol (57-55-	6) 1 %)							
Chemical Inventory	: Component Analysis -]	Inven	tory							
Listings										

Listings

Component	US	CA	EU	AU	PHIL	JP	KR	CN	NZ
Propylene glycol (CAS No. 57-55-6)	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Glycerin (CAS No. 56-81-5)	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

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; LEL - Lower

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

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