Safety Data Sheets

1. Identification

Product Name	: CS250 ink Yellow
Order No.	: CS250-Y-BA
General Use	: Ink for ink jet printer
Product Description	: Solvent pigment ink
SDS Number	: 037-S295562
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	: 4851 Thurmon Tanner Parkway, STE 100 Flowery Branch, GA 30542, 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

[HCS Classification]

Physical Hazards

Flammable Liquids	: Category 4

Health Hazards

Serious Eye Damage / Irritation	: Category 2A
Specific Target Organ Toxicity (Single Exposure)	: Category 2(central nervous system)

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

[HCS Label Elements]

Symbol

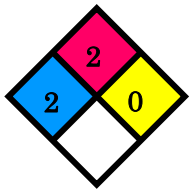
Signal Word
Warning

Hazard Statements
H227 Combustible liquid.
H319 Causes serious eye irritation.
H371 May cause damage to organs (central nervous system).

Precautionary Statements
[Prevention]
P210 Keep away from heat/sparks/open flames/hot surfaces.-No smoking.
P260 Do not breathe gas/mist.
P264 Wash hands and eyes 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]
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 or doctor/physician.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use appropriate media for extinction.
[Storage]
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
[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 = 2
Instability = 0
Special =



CANADIAN WHMIS SYMBOLS : B3 , D2A , D2B

3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Glycol ether solvents	70-80	Trade Secret

2	γ -Butyrolactone	10-20	96-48-0
3	Azo nickel pigment	1-10	Trade Secret
4	Chlorinated Ethylene-Vinyl Acetate Copolymer (CEVA)	1-10	Trade Secret
5	Acrylic Type Compound	1-10	Trade Secret
6	Additive 1	0.1-5	Trade Secret
7	Additive 2	0.1-5	Trade Secret

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

4. First Aid Measures

Description of Necessary 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. Get medical attention if irritation develops.

Ingestion : If swallowed, get medical attention.

Most Important Symptoms/Effects

Acute : eye irritation, central nervous system damage

Delayed : No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed : Treat symptomatically and supportively.

5. Fire Fighting Measures

Flammable Properties : Flash Point: 70 °C
Auto Ignition Temperature: 169 °C (Glycol ether type solvent)
Flammable Point:2.5vol%-33.0Vol% (Glycol ether type solvent)

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.

Special Hazards Arising from the Chemical	: Combustible liquid and vapor.
Hazardous Combustion Products	: **Combustion:** oxides of carbon, oxides of nitrogen
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.
Special Protective Equipment and Precautions for Firefighters	: Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	: Wear personal protective clothing and equipment, see Section 8.
Methods and Materials for Containment and Cleaning Up	: Eliminate all ignition sources if safe to do so. Stop leak if possible without personal risk. Reduce vapors with water spray. **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	: Keep away from heat, sparks, open flame, and hot surfaces - No

Handling	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, including any Incompatibilities	: 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.

8. Exposure Controls / Personal Protection

Exposure Limit Values	: ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.
Component Biological Limit Values	: There are no biological limit values for the component(s) of this product.

Exposure Controls

Occupational Exposure Controls

Appropriate 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.

Individual Protection Measures, such as Personal Protective Equipment

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

Glove Recommendations	: Wear appropriate chemical resistant gloves.

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

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Skin Protection : Wear appropriate chemical resistant clothing.

Environmental Exposure Controls
:

9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: Yellow
Odor		: solvent odor
pH		: Not Applicable
Boiling Point / Boiling Range		: Not available
Melting Point / Melting Range		: Not available
Flash Point		: 70℃
Auto ignition temperature		: 169 °C (Glycol ether type solvent)
Flammability (Solid, Gas)		: Not available
Upper / Lower Flammability or Explosive Limits		: 2.5 vol %-33.0 vol % (Glycol ether type solvent)
Vapor Pressure		: <=0.1 kPa (20°C) (Glycol ether type solvent)
Density		: 0.971 g/cm3
Water Solubility		: Not available
Viscosity		: 4.0-4.5 mPa/s @25 °C
Vapor Density		: Not available
Evaporation Rate		: Not available

10. Stability and Reactivity

Reactivity : No reactivity hazard is expected.

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.

Stability	: Stable under normal conditions of use.
Materials to Avoid	: acids, bases, oxidizing materials, halogens
Hazardous Reactions / Decomposition Products	: **Combustion:** oxides of carbon, oxides of nitrogen

11. Toxicological Information

Acute 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

Information on Likely Routes of Exposure

Inhalation	: irritation, nausea, headache, drowsiness, dizziness, unconsciousness, coma.
Ingestion	: irritation, nausea, headache, drowsiness, dizziness, unconsciousness, coma.
Skin Contact	: irritation, nausea, headache, drowsiness, dizziness, unconsciousness, coma.
Eye Contact	: irritation.
Immediate Effects	: eye irritation, central nervous system damage.
Delayed Effects	: No information on significant adverse effects.
Medical Conditions Aggravated by Exposure	: No information available for the product.
Irritation/Corrosivity Data	: Causes serious eye irritation.
Respiratory Sensitization	: No information available for the product.
Dermal Sensitization	: No information available for the product.
Germ Cell Mutagenicity	: 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))

Reproductive Toxicity

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.

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 : Components of this product are hazardous to aquatic life.

Component Analysis - Aquatic Toxicity

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

Mobility : No information available for the product.

Persistence and Degradability : No information available for the product.

Bioaccumulative Potential : No information available for the product.

Other Adverse Effects : No additional information is available.

13. Disposal Considerations

Disposal Methods : Empty containers may contain product residue.
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 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.

14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

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
TDG Information	: Not regulated as dangerous goods for transport.
US DOT Information	: Not regulated as dangerous goods for transport. *1

15. Regulatory Information

U.S. Federal Regulations : None of this products components are listed 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), or require an OSHA process safety plan.

SARA 311/312 : **Acute Health:** Yes **Chronic Health:** No **Fire:** Yes **Pressure:** No **Reactive:** No

U.S. State Regulations : None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

California Proposition 65 : **WARNING:**

This product can expose you to chemicals including Nickel compounds and Vinyl acetate, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Canada : WHMIS CLASSIFICATION: B3, D2A, D2B.

Canadian WHMIS Ingredient Disclosure List (IDL)

: None of the product component(s) are listed on the Ingredients Disclosure List (IDL).

Chemical Inventory Listings

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	Yes	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

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

Other Information

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