

## Safety Data Sheets

### 1. Identification

Product Name : UV ink Yellow  
Order No. : SPC-0404HY  
General Use : For ink jet  
Product Description : UV curable ink  
SDS Number : 037-U010380  
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 : 150 Satellite Boulevard, suite A, Suwanee, Georgia 30024, U.S.A.  
Telephone No. : +1-678-730-0700  
Emergency Telephone No. : +81-268-64-2281

### 2. Hazards Identification

[GHS Classification]

#### Physical Hazards

Flammable Liquids : Not classified

#### Health Hazards

Skin Corrosion / Irritation : Category 2

Eye Damage / Irritation : Category 2

Specific Target Organ Toxicity : Category 3 (respiratory tract irritation)

(Single Exposure)

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

## Safety Data Sheets

[GHS Label Elements]

Symbol



Signal Word

Warning

Hazard Statements

H315 Cause skin irritation

H319 Cause serious eye irritation

H335 May cause respiratory irritation

Precautionary Statements

[Prevention]

P261 Avoid breathing gas/mist.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P332+P313 If skin irritation 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.

[Storage]

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]

P501 Dispose of contents/container in accordance with

local/regional/national/international regulation (to be specified).

### Other Information

[Hazards not otherwise classified (HNOC)]

Not Applicable

[Other hazards]

- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

[Unknown Acute Toxicity]

83% of the mixture consists of ingredient(s) of unknown toxicity

# Safety Data Sheets

HMIS Rating (scale 0 – 4)

Health = 2	<b>2</b> Health
Flammability= 1	<b>1</b> Flammability
Reactivity = 0	<b>0</b> Reactivity
Protective Equipment = X	<b>X</b> Protective Equipment

NFPA Rating (scale 0 – 4)

Health = 2	
Flammability = 1	
Instability = 0	
Special = -	

CANADIAN WHMIS SYMBOLS : D2A - Very toxic materials



### 3. Composition / Information on Ingredients

No	Chemical Name	Wt%	CAS No.
1	Monomers	65-75	Trade Secret
2	Isooctyl acrylate (structure unspecified)	5-15	29590-42-9
3	Azo nickel complex pigment (Nickel compounds)	1-5	Trade Secret
4	1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-	1-5	119313-12-1
5	Photoinitiator	1-5	Trade Secret
6	Additives	1-5	Trade Secret
7	Oligomer	1-5	Trade Secret

### 4. First Aid Measures

General advice	: If symptoms persist, call a physician.
Inhalation	: Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Eye Contact	: Rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing.

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Skin Contact	: If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse.
Ingestion	: If swallowed, call a poison control center or physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Protection To First-Aiders	: Use personal protective equipment as required.

### Most important symptoms and effects, both acute and delayed

Symptoms : Not Available

### Indication of any immediate medical attention and special treatment needed

Note to physicians : Treat symptomatically.

## 5. Fire Fighting Measures

Flammable Properties	: Flash point ; 136 °C / 277 ° F Explosion data ; No data available
Extinguishing Media	: Dry chemical, CO <sub>2</sub> , water spray or alcohol-resistant foam.
Unsuitable Extinguishing Media	: Straight streams.
Specific hazards arising from the chemical	: In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.
Fire Fighting Instructions	: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. Accidental Release Measures

Personal Precautions	: Use personal protection recommended in Section 8. Avoid contact with eyes and skin. Keep people away from and upwind of spill/leak.
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- Environmental precautions : Collect spillage. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.
- Methods for containment : Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Methods for cleaning up : Use personal protective equipment as required. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

### 7. Handling and Storage

- Handling : Use personal protection recommended in Section 8. Avoid contact with skin and eyes. Do not breathe gas/mist.
- Storage : Keep out of the reach of children. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Avoid direct sunlight or high temperature.
- Incompatible materials : Strong oxidizing agents.

### 8. Exposure Controls / Personal Protection

- Exposure Limit Values : This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

No	Chemical Name	ACGIH	OSHA PEL	NIOSH IDLH
1	Azo nickel complex pigment (Nickel compounds)	N.E.	N.E.	IDLH: 10 mg/m <sup>3</sup> Ni TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni

NIOSH IDLH Immediately Dangerous to Life or Health

#### Exposure Controls

##### Occupational Exposure Controls

- Engineering Controls : Showers  
 Eyewash stations  
 Ventilation systems.

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### Personal Protection

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



Vapor  
Respirator

Hand Protection : Gloves made of plastic or rubber.



Gloves

Eye Protection : Tight sealing safety goggles. Face protection shield.



Safety  
Glasses

Skin Protection : Suitable protective clothing. Apron. Gloves made of plastic or rubber.



Protective  
Apron

### General Hygiene Considerations

: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended. Wash face, hands and any exposed skin thoroughly after handling.

### Environmental Exposure Controls

: Not available

## 9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: Yellow
Odor		: Characteristic odor
Boiling Point / Boiling Range		: Not Available
Melting Point / Melting Range		: Not Available
Decomposition Temperature		: Not Available
Flash Point		: 136°C / 277° F (Cleveland Open Cup)
Auto ignition temperature		: Not Available

## Safety Data Sheets

Upper / Lower Flammability or Explosive Limits	: Not Available
Vapor Pressure	: Not Available
Specific Gravity	: 1.0-1.1g/cm <sup>3</sup> (25 °C)
Solubility	: Not Available
Water Solubility	: Immiscible in water
Viscosity	: <30 mPa·s (25 °C)
VOC	: Not Available

### 10. Stability and Reactivity

Conditions to Avoid	: Extremes of temperature and direct sunlight.
Reactivity	: No reactivity under the normal usage
Stability	: Stable under recommended storage conditions.
Materials to Avoid	: Strong oxidizing agents.
Possibility of Hazardous	: None under normal processing.
Reactions	
Decomposition Products	: Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### 11. Toxicological Information

Acute Toxicity : 83% of the mixture consists of ingredient(s) of unknown toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isooctyl acrylate (structure unspecified)	> 5 g/kg (Rat)	-	-

Eye Irritation	: Category 2 as a product.
Skin Irritation	: Category 2 as a product.
Sensitization	: Not Available
Specific Target Organ Toxicity(Single Exposure)	: Category 3 (respiratory tract irritation) as a product.
Chronic Toxicity	: Avoid repeated exposure.

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Carcinogenicity : The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Azo nickel complex pigment (Nickel compounds)	-	Group 1	Known	X

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X – Present

### 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 : Toxic to aquatic life with long lasting effects. Toxic to aquatic life. 83% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Fish	Crustaces
Isooctyl acrylate (structure unspecified)	0.67: 96 h Pimephales promelas mg/L LC50	0.4: 48 h Daphnia magna mg/L EC50

Persistence and Degradability : Not Available

Bioaccumulative Potential : Not Available

Other Adverse Effects : Not Available



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### 13. Disposal Considerations

: Disposal should be in accordance with applicable regional, national and local laws and 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.

#### Us Department of Transportation (DOT)

UN Number : UN3082

Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-)

Hazardous Class : 9

Packing Group (PG) : III

Special Provisions : 8, 146, 173, 335, IB3, T4, TP1, TP29

Marine pollutant : Not Applicable

Emergency Response : 171

Guide Number

Description : UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-), 9, III

#### TDG

UN Number : UN3082

Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-)

Hazardous Class : 9

Packing Group (PG) : III

Special Provisions : none

Marine pollutant : Not regulated

## Safety Data Sheets

Description : UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-,  
9, III

### MEX

UN Number : UN3082  
Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-)  
Hazardous Class : 9  
Special Provisions : none  
Packing Group (PG) : III  
Description : UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-,  
9, III

### IATA

UN Number : UN3082  
Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-)  
Hazardous Class : 9  
Packing Group (PG) : III  
ERG Code : 9L  
Special Provisions : A97, A158  
Description : UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-,  
9, III

### Sea Transport (IMDG)

UN Number : UN3082  
Proper Shipping Name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Butanone,  
2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-)  
Hazardous Class : 9

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Packing Group (PG) : III  
 EmS-No. : F-A, S-F  
 Special Provisions : 274,335  
 Marine Pollutant : This material meets the definition of a marine pollutant  
 Description : UN3082, Environmentally hazardous substance, liquid, n.o.s.  
 (Isooctyl acrylate, 1-Butanone,  
 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-,  
 9, III  
 Environmental hazard : Yes

Remarks : Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) is  
 excepted from Dangerous Goods regulations.  
 Refer to ICAO/IATAA197, IMDG 2.10.2.7, ADR SP 375.

### 15. Regulatory Information

#### U.S. Federal Regulations

CERCLA : This material, as supplied, does not contain any substances regulated  
 Reportable Quantity as hazardous substances under the Comprehensive Environmental  
 (40 CFR 302) 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

#### SARA Title III

Section 311/312	: Acute health hazard	Yes
(40 CFR 370)	Chronic Health Hazard	No
	Fire hazard	No
	Sudden release of pressure hazard	No
	Reactive Hazard	No

Section 313 : Section 313 of Title III of the Superfund Amendments and  
 (40 CFR 372) Reauthorization Act of 1986 (SARA). This product contains a  
 chemical or chemicals which are subject to the reporting  
 requirements of the Act and Title 40 of the Code of Federal  
 Regulations, Part 372



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Chemical Name	weight-%	SARA 313 – Threshold Values %
Azo nickel complex pigment (Nickel compounds)	<5	0.1

CWA (Clean Water Act) : 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)

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Azo nickel complex pigment (Nickel compounds)	-	X	-	-

### U.S. State Regulations

California Proposition 65 : This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Azo nickel complex pigment (Nickel compounds)	Carcinogen

U.S.State Right-to-Know Regulations : This product contains substances regulated by state right-to-know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Azo nickel complex pigment (Nickel compounds)	X	-	X

### U.S.EPA Label Information

EPA Pesticide Registration Number : Not Applicable

Canada

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

WHMIS Hazard Class : D2A - Very toxic materials

Others : Please refer to any other federal, state and local regulations.

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### 16. Other Information

#### References

- 1) LOLI Database (ChemADVISOR, Inc.)
- 2) Japan National Institute of Technology and Evaluation
- 3) EU CLP(1272/2008)Annex VI Table 3.1

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