

Product Name: UV Ink Yellow MSDS No. 031-34U01HC

First issue: 2008/6/20 Revised:2012/01/18

Material Safety Data Sheets

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CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

1. Product and Company Identification

Product Name : UV Ink Yellow
Product Code : SPC-0404HY
General Use : For ink jet

Product Description : UV curable ink
MSDS Number : 031-34U01HC

Manufacture

Company Name : Mimaki Engineering Co., Ltd

Address : 2182-3 Otsu, Shigeno, 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. : 1-678-730-0100 Emergency Telephone No. : +81-268-64-2413

2. Hazards Identification

Emergency Overview : ADVERSE HUMAN HEALTH HAZARDS

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

: ENVIRONMENTAL EFECTS

Toxic to aquatic organisms, may cause long-term adverse effects in

the aquatic environment.

Potential Health Effects

Inhalation : Irritating to respiratory system.

Eye Contact : Irritating to eyes.
Skin Contact : Irritating to skin.

Carcinogens : This product contains nickel compound as colorant.

IARC lists nickel compound as Group 1 carcinogenic, but this colorant was not been evaluated or classified for carcinogenic by

IARC.

Potential Environmental : Toxic to aquatic organism. May cause long-time adverse effects in

Effects the aquatic environment.



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Hazard Label

Xi: Irritant



HMIS Rating (scale 0-4)

NFPA Rating (scale 0-4)

Health = 1

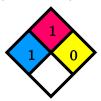
Flammability= 1

Reactivity = 0

Protective Equipment =



Health = 1 Flammability = 1 Reactivity =0



3. Composition / Information On Ingredients

No	Chemical Name	Wt%	CAS No.	Chemical Formula
1	Acrylates	80 - 90	Registered	-
2	Azo nickel complex pigment(*	< 5	Registered	-
3	$\operatorname{Additives}$	< 10	Registered	-

^{(*}This product contains approximately 0.3mass% complex bonded nickel.

4. First Aid Measures

Inhalation : Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place stably in side position for

transportation.

Eye Contact : Rinse opened eye for several wash under running water.

If symptoms persist, consult a doctor.

Skin Contact : Immediately wash with water and soap and rinse thoroughly.

Ingestion : If symptoms persist consult doctor.

5. Fire Fighting Measures

Flammable Properties Autoignition temperature : No Data Available

Flash Point : 125-135 degree C



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[Test Method: Cleveland Open Cup]

Flammable Limits – LEL : No Data Available
Flammable Limits – UEL : No Data Available

Extinguishing Media : Dry chemical powder, form or dioxide.

Fire Fighting Instructions

: Fight fire from maximum distance.

Shut off fuel to fire if possible to do so without hazard. Wear full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus).

6. Accidental Release Measures

Person-related safety precautions : Not required.

Measures for environmental protection : Inform respective authorities in case of seepage into

water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/ collecting : Absorb with liquid-binding material (sand, diatomite,

acid binders, universal binders, sawdust).

Ensure adequate ventilation.

7. Handling And Storage

Handling : Keep away from heat and direct sunlight.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Storage : Store product in tightly closed original containers in dry and cool

place protected from sunlight fluorescent light, preferably at below

25 degree C on impermeable ground. Keep away from sources of ignition. Store away from oxidizing agents.



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8. Exposure Controls / Personal Protection

Exposure Limit Values

Chemical Name		TWA	
Azo nickel complex	OSHA	Not applicable	
pigment	ACGIH	Not applicable	
Nielrel imaeluble	OSHA	$1 \mathrm{mg/m^3}$	
Nickel, insoluble	ACGIH	As Ni, inhalable fraction	
compounds	ACGIII	$0.2 \mathrm{mg/m^3}$	

Source of exposure limit data:

OSHA: Occupational Safety and Health Administration

ACGIH: American Conference of Governmental Industrial Hygienists

Exposure Controls

Occupational Exposure Controls

Engineering Controls : Do not use in areas without adequate ventilation.

Personal hygiene and protective equipment

: Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Personal Protection

Respiratory : In case of brief exposure or low pollution use respiratory filter device.

Protection In case of intensive or longer exposure use respiratory protective

device that is independent of circulating air.

Hand Protection

Gloves

: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/the preparation.

Due to missing tests no recommendation to the glove material can be

given for the product/the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration

times, rates of diffusion and the degradation.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacture to manufacture. As the product is a preparation of



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several substances, the resistance of the glove material cannot be calculated in advance has therefore to be checked prior to the application.

The exact break trough time has to be found out by the manufacture of the protective gloves and has to be observed.

Eye Protection : Tightly sealed goggles



Skin Protection : Long sleeve clothing, resistant to solvents.

9. Physical And Chemical Properties

Appearance - Physical state : liquid

- Color : Yellow

Odor : Characteristic odor
pH : Not applicable
Boiling Point / Boiling Range : No data available

Melting Point / Melting Range : No data available
Flash Point : 125-135 degree C
Auto-Ignition Temperature : No data available

Explosive Properties : Product does not present an explosion hazard.

Flammable Limits : No data available
Vapour Pressure : Not available
VOC : Not applicable

Specific Gravity : 1.06 [Ref Std: WATER=1]

Solubility : Miscible in organic solvent

Water solubility : Not miscible or difficult to mix.

Viscosity : 18 – 22 mPa·s (25 degree C)

Surface tension 29.5 - 32.5 mN/m (25 degree C)

Solvent content : Organic solvents 0.0%



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10. Stability And Reactivity

Thermal decomposition/ : No decomposition if used according to specifications.

Conditions to be avoided

Dangerous reaction : No dangerous reactions known.

Dangerous decomposition : No dangerous decomposition products known.

products

11. Toxicologocal Information

Acute Toxicity : Not available
Eye Irritation : Irritating effect.

Skin Irritation : Irritant to skin and mucous membranes.
Sensitization : Sensitization possible through skin contact.

May cause sensitization by skin contact.

Mutagenicity : Not available

Others :The product shows the following dangers according to the calculation

method of the General EU Classification Guidelines for Preparations

as issued in the latest version: Irritant

12. Ecological Information

Ecotoxicity : Not available
Persistence And Degradability : Not available
Bioaccumulative Potential : Not available
Other Adverse Effects : Not available
Remark : Toxic for fish

General notes

Water hazard class2(German Regulation)(Self-assessment)

: Hazardous for water.

Do not allow product to reach ground water, water

course or sewage system.

Danger to drinking water if even small quantities leak

into the ground.



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Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

13. Disposal Considerations

: Must not be disposed together with household garbage.

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.

Us Department of Transportation (DOT)

Hazardous Materials : Not Applicable

Sea Transport (IMDG)

Class : 9
Packing Group (PG) : Ⅲ
UN Number : 3082
Label : 9

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (isooctyl Acrylate,

2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)

Marine Pollutant : No

Air Transport (ICAO/IATA)

Class : 9
Packing Group(PG) : III
UN Number : 3082
Label : 9

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (isooctyl Acrylate,

2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)



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UN "Model Regulation" : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S.; 9; III

Environmental hazards : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUIDN.O.S.

15. Regulatory Information

Follow all regulations in your country.

OSHA Status

OSHA Hazard Communication Standard (29 CFR 1910.1200)

: Exposure limit values

Permissible Exposure Limit (PEL) -Time Weight Averages (TWA)

Azo nickel complex pigment: not applicable Nickel, insoluble compounds: TWA 1 mg/m3

TSCA Status

: All ingredients are listed.

CERCLA Reportable Quantity (40 CFR 117, 302)

: None of the ingredient is listed.

SARA Title III

Section 302 (40 CFR 355)

: None of the ingredient is listed.

Section 311/312 (40 CFR 370)

: Not evaluated.

Section 313 (40 CFR 372)

: This product contains toxic chemicals (Nickel compounds) for under

Sec.313 (40 CFR 372.65).

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

Proposition 65

Chemicals known to cause cancer

: This product contains toxic chemicals (Nickel compounds) known to

the State of California to cause cancer.

Chemicals known to cause developmental toxicity

: None of the ingredient is listed.

Product related hazard information

: The product has been classified and marked in accordance with



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directives on hazardous materials.

Hazard symbols

: Irritant

Risk information

: Irritating to eyes, respiratory system and skin. May cause

sensitization by skin contact. Toxic to aquatic organisms, may cause

long-term adverse effects in the aquatic environment.

Safety information Do not breathe gas/fumes/vapor/spray (appropriate wording to be

specified by the manufacturer). Avoid contact with skin. Wear

suitable gloves.

National regulations

Water hazard class

: Water hazard class 2 (self-assessment)

: Hazardous for water.

16. Other Information

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

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

Mimaki Engineering Corporation assumes no legal responsibility for use or reliance upon this information.

Revision history

Version	Date	Content
1.0	2008/06/20	First issue
2.0 2012/01/17		Revised except section 1, 3 and 16.