

Safety Data Sheets

1. Identification

Product Name	: UV ink White
Order No.	: SPC-0371W-6
General Use	: For ink jet
Product Description	: UV curable ink
SDS Number	: 037-U012001
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 Australia	
Company Name	: MIMAKI AUSTRALIA PTY LTD.
Address	: Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia
Telephone No.	: + 61-2-8036-4500
Emergency Telephone No.	: +61 2 8014 4558 (within Australia only) 18000 74234 (within Australia only) +65 3158 1074

2. Hazards Identification

[Classification of the substance or mixture]

Physical Hazards

Flammable Liquids : Not classified

Health Hazards

Skin Corrosion / Irritation : Category 2

Eye Damage / Irritation : Category 2

Sensitization – Skin : Category 1

Specific Target Organ Toxicity : Category 3

(Single Exposure)

Environmental Hazards

Hazardous to the Aquatic : Category 2

Environment - Long Term Hazard

Classification according to Directive 67/548/EEC

Full text of R-phrases: see section 16

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

[Hazard symbols]

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Xi - Irritant

N - Dangerous for the environment

[R-code(s)]

Xi:R36/37/38 - R43 - N:R51/53

[Label Elements]

Contains Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-

Symbol



Signal Word

Warning

Hazard Statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H411 - Toxic to aquatic life with long lasting effects

H335 - May cause respiratory irritation

Precautionary Statements - EU (§28, 1272/2008)

[Prevention]

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

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

P362 - Take off contaminated clothing and wash before reuse

[Other hazards]

Hazards not otherwise classified (HNOC)

- Not Applicable

Other hazards

- May be harmful if swallowed
- Toxic to aquatic life

3. Composition / Information on Ingredients

Pure substance/mixture: mixture

Chemical Name	CAS No	weight-%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]

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Monomers	CBI	50-60	-	No data available
TITANIUM(4) OXIDE	13463-67-7	10-20	-	No data available
Isooctyl acrylate (structure unspecified)	29590-42-9	5-15	Xi; R36/37/38 N; R50-53	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Photoinitiator	CBI	5-10	-	No data available
Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-	162881-26-7	1-5	R43 R53	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)
2-Methyl-1-[p-(methylthio)phenyl]-2-morpholino-1-propanone	71868-10-5	1-5	Xn; R22 N; R51-53	Acute Tox. 4 (H302) Aquatic Chronic 2 (H411)
Oligomer	CBI	1-5	-	No data available
Additives	CBI	1-5	-	No data available

Full text of R-phrases: see section 16

Full text of H-phrases: see section 16

4. First Aid Measures

[Description of 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.
- Skin Contact : If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse.
- 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.
- 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.
- Self-protection of the first aider : Use personal protective equipment as required.

[Most important symptoms and effects, both acute and delayed]

- Symptoms : May cause allergic skin reaction.

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[Indication of any immediate medical attention and special treatment needed]

Note to physicians : May cause sensitization of susceptible persons. Treat symptomatically.

5. Fire Fighting Measures

Flammable Properties : Flash Point, 131 ° C / 268 ° F

Suitable Extinguishing : Dry chemical, CO₂, water spray or alcohol-resistant foam.

Media

Unsuitable Extinguishing : Do not use straight streams

Media

Special hazards arising from the substance or mixture : 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.

Advice for firefighters : Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

6. Accidental Release Measures

[Personal Precautions, Protective Equipment and Emergency Procedures]

Personal precautions : Use personal protection recommended in Section 8. Avoid contact with eyes and skin. Keep people away from and upwind of spill/leak.

For emergency responders : Use personal protection recommended in Section 8.

Environmental Precautions : Collect spillage. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

[Methods and material for containment and cleaning up]

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.

Reference to other sections : See Section 12: ECOLOGICAL INFORMATION.

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7. Handling and Storage

[Precautions for Safe Handling]

- Advice on safe handling : Use personal protection recommended in Section 8. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
- General Hygiene : 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.
- Considerations

[Conditions for Safe Storage, including any Incompatibilities]

- Storage Conditions : Keep out of the reach of children. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid direct sunlight or high temperature.

[Specific end use(s)]

- Risk Management : The information required is contained in this Safety Data Sheet.
- Methods (RMM)

8. Exposure Controls / Personal Protection

[Control parameters]

Chemical Name	ACGIH	OSHA PEL	NIOSH IDLH
TITANIUM(4) OXIDE 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

Chemical Name	Australia	European Union
TITANIUM(4) OXIDE 13463-67-7	10 mg/m ³	-

[Exposure Controls]

- Engineering Controls : Ensure adequate ventilation, especially in confined areas.
- Personal Protective Equipment
- Eye/face protection : Tight sealing safety goggles. Face protection shield.
- Hand Protection : Gloves made of plastic or rubber.
- Skin and body protection : Suitable protective clothing. Apron. Gloves made of plastic or rubber.
- Environmental exposure controls : Do not allow into any sewer, on the ground or into any body of water.

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9. Physical and Chemical Properties

Appearance	- Physical State	: liquid
	- Color	: white
Odor		: Characteristic odor
Odor Threshold		: No data available
pH		: No data available
Melting point/freezing point		: No data available
Boiling point/boiling range		: No data available
Flash point		: 131 °C / 268 °F (Cleveland Open Cup)
Evaporation rate		: No data available
Flammability (solid, gas)		: No data available
Flammability Limits in Air		: No data available
Upper flammability limits		
Lower flammability limit		
Vapor Pressure		: No data available
Vapor density		: No data available
Specific gravity		: 1.2-1.3g/cm ³ (25 deg.C)
Solubility(ies)		: Immiscible in water
Partition coefficient		: No data available
Autoignition temperature		: No data available
Decomposition temperature		: No data available
Kinematic viscosity		: No data available
Dynamic viscosity		: <30 mPa·s(25 deg.C)
[Other information]		
Molecular weight		: No data available
Explosive properties		: No data available
Oxidizing properties		: No data available
Softening point		: No data available
VOC Content (%)		: No data available
Density		: No data available
Bulk density		: No data available

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10. Stability and Reactivity

Reactivity	: No reactivity under the normal usage.
Chemical Stability	: Stable under normal conditions.
Explosion data	: Sensitivity to Mechanical Impact; No data available. Sensitivity to Static Discharge; No data available.
Possibility of Hazardous Reactions	: None under normal processing.
Conditions to Avoid	: Heat, flames and sparks.
Incompatible Materials	: Strong oxidizing agents.
Hazardous decomposition products	: Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. Toxicological Information

[Information on toxicological effects]

Acute Toxicity

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

Toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral): 4,778.00 mg/kg

Component Information

LD/LC50 values that relevant for classification.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
TITANIUM(4) OXIDE	> 10000 mg/kg (Rat)	-	-
Isooctyl acrylate (structure unspecified)	> 5 g/kg (Rat)	-	-

Skin : No data available.

corrosion/irritation

Serious eye damage/eye irritation : No data available.

irritation

Sensitization : No data available.

Germ cell mutagenicity : No data available.

Carcinogenicity : No data available.

Reproductive toxicity : No data available.

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STOT - single exposure : No data available.

STOT - repeated : No data available.

exposure

Chronic toxicity : Repeated contact may cause allergic reactions in very susceptible persons Avoid repeated exposure

Aspiration hazard : No data available.

[Information on likely routes of exposure]

INHALATION : No data available.

Eye contact : No data available.

Skin Contact : No data available.

INGESTION : No data available.

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 : The table below indicates component(s) of known hazards to the aquatic environment. Toxic to aquatic life with long lasting effects.
83% of the mixture consists of component(s) of unknown hazards to the aquatic environment

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

Persistence and : No data available.

Degradability

Bioaccumulative : No data available.

potential

Mobility in soil : No data available.

Results of PBT and vPvB assessment : This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects : No data available.

13. Disposal Considerations

[Waste treatment methods]

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Waste from Residues / Unused Products	: Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	: Disposal should be in accordance with applicable regional, national and local laws and regulations.
Other Information	: Waste codes should be assigned by the user based on the application for which the product was used.

14. Transport Information

Check a thing without a leak in a container.
 Perform prevention of collapse of cargo surely.

[IMDG]

UN/ID no	: UN3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-)
Hazard Class	: 9
Packing Group	: III
Marine pollutant	: This material meets the definition of a marine pollutant
Environmental hazard	: Yes
Special Provisions	: 274, 335
EmS-No	: F-A, S-F
Description	: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-) , 9, III

[RID]

UN/ID no	: UN3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-)
Hazard Class	: 9
Packing Group	: III
Environmental hazard	: Yes
Classification code	: M6
Special Provisions	: none
Description	: UN3082, Environmentally hazardous substance, liquid, n.o.s.

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(Isooctyl acrylate, 1-Propanone,
2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-) , 9, III

[ADR]

UN/ID no : UN3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-)

Hazard Class : 9

Packing Group : III

Environmental hazard : Yes

Special Provisions : 274, 335, 601

Classification code : M6

Tunnel restriction code : (E)

Description : UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-) , 9, III, (E)

[IATA]

UN/ID no : UN3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (Isooctyl acrylate, 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-)

Hazard Class : 9

Packing Group : III

Environmental hazard : Yes

Special Provisions : A97, A158

ERG Code : 9L

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

Remarks : Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) is excepted from Dangerous Goods regulations.
Refer to ICAO/IATA A197, IMDG 2.10.2.7, ADR SP 375.

15. Regulatory Information

[Safety, health and environmental regulations/legislation specific for the substance or mixture]

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International : AICS; Complies
Inventories Legend; AICS - Australian Inventory of Chemical Substances
National Regulations : National occupational exposure limits.
See chapter 8.

16. Other Information

[Full text of R-phrases referred to under sections 2 and 3]

R22 - Harmful if swallowed

R43 - May cause sensitization by skin contact

R53 - May cause long-term adverse effects in the aquatic environment

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R36/37/38 - Irritating to eyes, respiratory system and skin

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

[Full text of H-Statements referred to under sections 2 and 3]

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H413 - May cause long lasting harmful effects to aquatic life

[Key or legend to abbreviations and acronyms used in the safety data sheet]

ACGIH (American Conference of Governmental Industrial Hygienists)

[Key literature references and sources for data]

No information available

[Reference]

LOLI Database (ChemADVISOR, Inc.)

The reference on GHS classification results

EU CLP(1272/2008)Annex VI Table 3.1

[Disclaimer]

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



Product Name: UV ink White
SDS No. 037-U012001
First issue: 2017/04/06
Revised: 2019/11/12

Safety Data Sheets

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