

Safety Data Sheets

Section 1 – Identification

Product identifier	SW-110 ink
Product code	SW110-Z-BA
Recommended use of the chemical and restrictions on use	UV curable 3D model support ink
Details of manufacturer or importer	MIMAKI ENGINEERING CO., LTD. 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 Japan +81-268-64-2413
Importer / Distributor Information	MIMAKI AUSTRALIA PTY LTD. Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia + 61-2-8036-4500
Emergency phone number	+61 2 8014 4558 (within Australia only) 18000 74234 (within Australia only) +65 3158 1074

Section 2 – Hazard(s) Identification

Classification of the hazardous chemical

Acute toxicity – oral Category 4
 Serious eye damage/eye irritation Category 1
 Sensitization – skin Category 1
 Reproductive toxicity Category 2
 Specific target organ toxicity (repeated exposure) Category 2
 Hazard to the aquatic environment (acute hazard) Category 2
 Hazard to the aquatic environment (long-term hazard) Category 2

Label elements, including precautionary statements

Pictograms or Symbols



Signal Word

Hazard Statements

Danger
 H302 Harmful if swallowed
 H318 Causes serious eye damage
 H317 May cause an allergic skin reaction
 H361 Suspected of damaging fertility or the unborn child (state specific effect if known)
 H373 May cause damage to organs through prolonged or repeated exposure
 H401 Toxic to aquatic life

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Precautionary Statements

Prevention

H411 Toxic to aquatic life with long lasting effects

Obtain special instructions before use(P201)

Do not handle until all safety precautions have been read and understood(P202)

Do not breathe mist, vapours and spray.(P260)

Wash thoroughly after handling.(P264)

Do not eat, drink or smoke when using this product(P270)

Contaminated work clothing should not be allowed out of the workplace.(P272)

Avoid release to the environment(P273)

Wear protective gloves.(P280)

Wear eye protection and face protection.(P280)

Use personal protective equipment as required.(P281)

Response

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell(P301+P312)

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

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

IF exposed or concerned: Get medical advice/attention(P308+P313)

Immediately call a POISON CENTER/doctor(P310)

Get medical advice/attention if you feel unwell(P314)

Specific treatment.(P321)

Rinse mouth(P330)

If skin irritation or rash occurs: Get medical advice/attention(P333+P313)

Wash contaminated clothing before reuse(P363)

Collect spillage(P391)

Storage

Store locked up(P405)

Disposal

Dispose of contents/ container to an approved landfill.(P501)

Section 3 – Composition and Information on Ingredients

Substances or mixture	Mixtures		
Ingredients name	Contents	Chemical formula	CAS RN
Water-soluble resin	50-60%	Unknown	Confidential
Morpholine, 4-(1-oxo-2-propenyl)-	30-40%	Unknown	5117-12-4
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	1-10%	Unknown	75980-60-8

Section 4 – First Aid Measures

In case of inhalation

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

IF exposed or concerned: Get medical advice and attention.

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In case of skin contact	<p>IF ON SKIN: Wash with plenty of soap and water. Take of contaminated clothing and wash before re-use. If skin irritation or rash occurs, get medical advice and attention. IF exposed or concerned: Get medical advice and attention. Specific treatment.</p>
In case of eye contact	<p>Immediately call a POISON CENTRE or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice and attention.</p>
In case of ingestion	<p>IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF exposed or concerned: Get medical advice and attention. Induce vomiting.</p>

Section 5 – Fire Fighting Measures

<p>Suitable extinguishing equipment Not suitable extinguishing media Specific hazards arising from the chemical Special protective equipment and precautions for fire fighters</p>	<p>Dry chemical, alcohol-resistant foam, CO₂, sand, water spray. Cylindric water. Risk of producing harmful gases such as carbon monoxide and sulfur oxides. Avoid inhalation of smoke or gases Use goggles in combination with dust mask, and another protections as appropriate to situation.</p>
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Section 6 – Accidental Release Measures

<p>Personal precautions, protective equipment and emergency procedures</p>	<p>Use goggles in combination with dust mask, and another protections as appropriate to situation.</p>
<p>Environmental precautions Methods and materials for containment and cleaning up</p>	<p>Large spills :Evacuate area. Ensure adequate ventilation. Do not discharge into the drains, surface waters or ground water directly. small spill : absorb with material such as non-combustible material wash thoroughly after handling Large spills: Dike spills and dispose of in safe area.</p>

Section 7 – Handling and Storage

<p>Handling Technical measures</p>	<p>Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.</p>
<p>Safe handling advice</p>	<p>Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.</p>

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Contaminated work clothing should not be allowed out of the workplace.
Do not breathe dust/fume/gas/mist/vapours/spray.

Storage

Suitable storage conditions Store locked up.

Section 8 – Exposure controls and personal protection

Control parameters	No data available
Engineering controls	Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use explosion-proof electrical equipment and prevent from static electrocivity.
Individual protection measures, for example personal protective equipment (PPE)	
Eye and face protection	Wear eye protection/face protection.
Skin protection	Wear protective clothing.
Hand protection	Wear protective gloves.
Respiratory protection	If necessary, wear respiratory protection.

Section 9 – Physical and Chemical Properties

Appearance	
Physical state	Liquid
Color	clear to light yellow
Odor	unique odor
Odor threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling ranget	No data available
Flash point	93°C or more
Evaporation rate	No data available
Flammability(Solid,Gas)	No data available
Flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	1.07(25°C)
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	66±5mPa·s(25°C)

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Section 10 – Stability and Reactivity

Reactivity	No reactivity hazard is expected.
Chemical stability	Stable under normal conditions of use.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid flames, sparks, and other sources of ignition. Avoid contact with incompatible materials.
Incompatible materials	oxidizing materials, strong acids, strong bases
Hazardous decomposition products	oxides of carbon, oxides of nitrogen

Section 11 – Toxicological Information

Acute toxicity (Oral)	Category 4:5117-12-4 (converted value = 500mg/kg, source: GHS Hazardous Chemical Information List) Not applicable:75980-60-8 (source: NITE) No data:Confidential (source: None)
Acute toxicity (Dermal)	Calculation result = 579.787234mg/kg. Classification result = Category 4. Not applicable:75980-60-8 (source: NITE), 5117-12-4 (source: NITE) No data:Confidential (source: None)
Acute toxicity (Inhalation : Gases)	Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. Does not fall under gas based on GHS definitions.
Acute toxicity (Inhalation : Vapours)	Unable to classify due to insufficient data.
Acute toxicity (Inhalation : dust/mist)	Not applicable:75980-60-8 (source: NITE), 5117-12-4 (source: NITE) No data:Confidential (source: None)
Skin corrosion/ Irritation	Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. Not applicable:75980-60-8 (source: NITE), 5117-12-4 (source: NITE) No data:Confidential (source: None)
Serious eye damage/ irritation	Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. Category 1:5117-12-4 (source: GHS Hazardous Chemical Information List) Not applicable:75980-60-8 (source: NITE) No data:Confidential (source: None)
Respiratory Sensitization	Sum of Eye category 1 Concentration limit = 3%. Classification result = Category 1.
Skin Sensitization	Unable to classify due to insufficient data. Category 1:5117-12-4 (source: GHS Hazardous Chemical Information List)

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	Not applicable:75980-60-8 (source: NITE) No data:Confidential (source: None)
Germ cell mutagenicity	5117-12-4 >= 1% Classification result = Category 1 Unable to classify due to insufficient data.
Carcinogenicity	Unable to classify due to insufficient data.
Reproductive toxicity	Category 2:75980-60-8 (source: GHS Hazardous Chemical Information List) Not applicable:5117-12-4 (source: NITE) No data:Confidential (source: None)
Reproductive toxicity, effects on or via lactation	75980-60-8 >= 3% Classification result = Category 2 Unable to classify due to insufficient data.
Specific target organ toxicity – Single exposure	Not applicable:75980-60-8 (source: NITE), 5117-12-4 (source: NITE) No data:Confidential (source: None)
Specific target organ toxicity – Repeated exposure	Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. Category 2:5117-12-4 (organ = ---, source: GHS Hazardous Chemical Information List) Not applicable:75980-60-8 (source: NITE) No data:Confidential (source: None)
Aspiration hazard	5117-12-4 >= 10% Classification result = Category 2 Unable to classify due to insufficient data.

Section 12 – Ecological Information

Hazardous to the Aquatic Environment – Acute Toxicity	Classification result = Category 2.
Hazardous to the Aquatic Environment – Chronic Toxicity	Classification result = Category 2.
Hazardous to the Ozone layer	Unable to classify due to insufficient data.

Section 13 – Disposal considerations

Residual waste	Before disposal, make the wastes harmless, stabilized, and neutralized, and minimize danger and toxicity of the wastes. Dispose of waste in accordance with local, state and federal regulations.
Contaminated container and packaging	Passed to a licensed waste contractor. In case of disposal of empty containers, remove the content thoroughly.

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Section 14 – Transport Information

International regulations

IMDG

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	III
Special Provision	2.10.2.7 *1

IATA

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	III
Special Provision	A197 *1

ADG

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	III

*1 Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) is excepted from Dangerous Goods regulations
 -- see UN Special Provision.

Section 15 – Regulatory Information

No main regulation

Component Analysis – Inventory

Morpholine, 4-(1-oxo-2-propenyl)- (5117-12-4)

TSCA – United States	ENCS – Japan	KECI – Korea	IECSC – China	NDSL – Canada	PICCS – Philippines	AICS – Australia	ELINCS – European Union	TCSI – Taiwan	NZIoC – New Zealand
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide (75980-60-8)

TSCA – United States	ENCS – Japan	KECI – Korea	IECSC – China	DSL – Canada	PICCS – Philippines	AICS – Australia	EINECS – European Union	TCSI – Taiwan	NZIoC – New Zealand
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 – Other information

Literature References

NITE GHS
 EU CLP Regulation, AnnexVI

Other data

The information suggested in this Safety Data Sheet does not comprehend



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everything and should be adopted only as a guide.

The accuracy of the information and recommendations suggested herein are credible. However the company makes no warranty regarding such information and recommendations and disclaims all liability for reliance thereon.