

## Safety Data Sheets

Product Name: SW-100 ink SDS No. 037-U144054 First issue: 2018/06/27 Revised: 2020/12/01

Section 1 - Identification	
Product identifier	SW-100 ink
Product code	SW100-Z-BD / SW100-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



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



Product Name: SW-100 ink SDS No. 037-U144054 First issue: 2018/06/27 Revised: 2020/12/01

	H411 Toxic to aquatic life with long lasting effects
Precautionary Statements	
Prevention	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 Mixtu	ures		
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 oxi	ide 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.



In case of skin contact	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.
In case of eye contact	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.
In case of ingestion	IF exposed or concerned: Get medical advice and attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF exposed or concerned: Get medical advice and attention. Induce vomiting.
Section 5 – Fire Fighting Measures	
Suitable extinguishing equipment Not suitable extinguishing media	Dry chemical, alcohol-resistant foam, CO2, sand, water spray. Cylindric water.
Specific hazards arising from the	Risk of producing harmful gases such as carbon monoxide and sulfur
chemical	oxides. Avoid inhalation of smoke or gases
Special protective equipment and	Use goggles in combination with dust mask, and another protections as
precautions for fire fighters	appropriate to situation.
Section 6 - Accidental Release Measu	
Personal precautions, protective	Use goggles in combination with dust mask, and another protections as
Personal precautions, protective equipment and emergency	
Personal precautions, protective	Use goggles in combination with dust mask, and another protections as appropriate to situation.
Personal precautions, protective equipment and emergency	Use goggles in combination with dust mask, and another protections as appropriate to situation. Large spills :Evacuate area.
Personal precautions, protective equipment and emergency procedures	Use goggles in combination with dust mask, and another protections as appropriate to situation. Large spills :Evacuate area. Ensure adequate ventilation.
Personal precautions, protective equipment and emergency procedures Environmental precautions	Use goggles in combination with dust mask, and another protections as appropriate to situation. Large spills :Evacuate area. Ensure adequate ventilation. Do not discharge into the drains, surface waters or ground water directly.
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash
Personal precautions, protective equipment and emergency procedures Environmental precautions	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up Section 7 – Handling and Storage	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up Section 7 – Handling and Storage Handling	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling Large spills: Dike spills and dispose of in safe area. Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up <u>Section 7 – Handling and Storage</u> Handling Technical measures	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling Large spills: Dike spills and dispose of in safe area. 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.
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up <u>Section 7 – Handling and Storage</u> Handling Technical measures	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling Large spills: Dike spills and dispose of in safe area. 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. Do not eat, drink or smoke when using this product.
Personal precautions, protective equipment and emergency procedures Environmental precautions Methods and materials for containment and cleaning up <u>Section 7 – Handling and Storage</u> Handling Technical measures	Use goggles in combination with dust mask, and another protections as appropriate to situation. 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 materialwash thoroughly after handling Large spills: Dike spills and dispose of in safe area. 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. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.



Product Name: SW-100 ink SDS No. 037-U144054 First issue: 2018/06/27 Revised: 2020/12/01

	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 pers	onal 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
	electrocity.
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

<b>,</b>	
Appearance	
Physical state	Liquid
Color	clear to light yellow
Odor	unique odor
Odor threshold	No data available
На	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-	No data available
octanol/water	
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	66±5mPa•s(25°C)



# Safety Data Sheets

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



Product Name: SW-100 ink SDS No. 037-U144054 First issue: 2018/06/27 Revised: 2020/12/01

Germ cell mutagenicity Carcinogenicity Reproductive toxicity	Not applicable:75980-60-8 (source: NITE) No data:Confidential (source: None) 5117-12-4 >= 1% Classification result = Category 1 Unable to classify due to insufficient data. Unable to classify due to insufficient data. 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	75980-60-8 >= 3% Classification result = Category 2 Unable to classify due to insufficient data.
via lactation	
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)
	5117–12–4 >= 10% Classification result = Category 2
Aspiration hazard	Unable to classify due to insufficient data.
Section 12 - Ecological Information	
Hazardous to the Aquatic	Classification result = Category 2.
Environment - Acute Toxicty	
Hazardous to the Aquatic	Classification result = Category 2.
Environment – Chronic Toxicity	
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.
Contaminated container and packaging	Dispose of waste in accordance with local,state and federal regulations. Passed to a licensed waste contractor.
	In case of disposal of empty containers, remove the content thoroughly.



## Safety Data Sheets

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	Ш
Special Provision	2.10.2.7 *1
ΙΑΤΑ	
UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	9
Packing group	Ш
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	Ш
*1 Single or inner packaging less than 5	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 State s	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 State	ENCS - Japan	KECI – Korea	IECSC - China	DSL - Canada	PICCS – Philippines	AICS - Australia	EINECS – European Union	TCSI – Taiwan	NZIoC – New Zealand
s Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - Other information

Literature References

NITE GHS

EU CLP Regulation, AnnexVI



Other data

Product Name: SW-100 ink SDS No. 037-U144054 First issue: 2018/06/27 Revised: 2020/12/01

The information suggested in this Safety Data Sheet does not comprehend 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.