

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation	SX-100
Use of the substance/preparation	
Issue date	11-April-2023
Version #	01
CAS #	Mixture
Company identification	Zhuhai Bentsai Electronics Co., Ltd Zone B, 2nd floor, No. 115 Huawei Road, Xiangzhou, Zhuhai, Guangdong Province, P.R. China
Emergency Information	Tel : 0756-8895581 Fax: 0756-8895581

2. HAZARDS IDENTIFICATION

GHS label elements	
Signal word	None.
Hazard symbols	None.
Hazard statement	None.
Precautionary statement	
Prevention	None.
Response	None.
Storage	None.
Disposal	None.
Physical hazards	Not classified as a physical hazard.
Health hazards	Not classified as a health hazard.
Environmental hazards	Not classified as an environmental hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Water	7732-18-5	70-80	231-791-2	
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10	222-359-4	
2-pyrrolidone	616-45-5	< 6.5	210-483-1	Xi;R36
Aliphatic diol	Proprietary	< 5	Proprietary	
invisible ink. colorant	Proprietary	<6.5	Proprietary	

Composition comments	This ink supply contains an aqueous ink formulation.
	For the full text of the R phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Skin contact	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
Eye contact	Do not rub eyes. Immediately flush with large amounts of clean, warm water (lo. pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.
Ingestion	If ingestion of a large amount does occur, seek medical attention.
General advice	Wash affected areas thoroughly with mild soap and water.

5. FIRE-FIGHTING MEASURES

Flash point	> 212.0 °F (> 100.0 °C) Pensky-Martens Closed Cup US EPA Method 1020
Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Extinguishing media which must not be used for safety reasons	None known.
Unusual fire & explosion hazards	None known.
Specific methods	None established.
Hazardous combustion products	Refer to section 10.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate personal protective equipment.
Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing.
Storage	Keep out of the reach of children. Keep away from excessive heat or cold.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	
Additional exposure data	Exposure limits have not been established for this product.
Engineering measures to reduce exposure	Use in a well ventilated area.
Personal protective equipment	
Skin and body protection	Not available.
General	Use personal protective equipment to minimize exposure to skin and eye.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	invisible ink
Odor	Not available.
pH	8.5 - 9.5
Melting point/Freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	> 212.0 °F (> 100.0 °C) Pensky-Martens Closed Cup US EPA Method 1020
Auto-ignition temperature	Not available.
Flammability limit - lower (%)	Not available.

Flammability limit - upper (%)	Not available.
Vapor pressure	Not available.
Specific gravity	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	3.2 - 3.3 cP
Other data	
VOC (Weight %)	< 265 g/L

10. STABILITY AND REACTIVITY

Conditions to avoid	Not available.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Stability	Stable under recommended storage conditions.
Materials to avoid	Incompatible with strong bases and oxidizing agents.
Hazardous polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	
Skin sensitization	Based on available data, the classification criteria are not met.
Respiratory sensitization	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Toxic to reproduction	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met
Other information	Complete toxicity data are not available for this specific formulation Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Toxicological data

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	5700 mg/kg
	Rat	5700 mg/kg
Aliphatic diol (CAS Proprietary)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 10000 mg/kg
<i>Oral</i>		
LD50	Rat	3680 mg/kg

Components	Species	Test Results
Other LD50	Mouse	1835 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Components	Species		Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
Ecotoxicity	No information available. This product is highly soluble in water.		
Environmental effects	Not available.		
Persistence / degradability	Not available.		
Bioaccumulation			
Bioaccumulative potential			
Octanol/water partition coefficient log Kow			
2-pyrrolidone			-0.85
Aliphatic diol			-0.106
Aquatic toxicity	No data available for this product.		
Mobility	Not available.		

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
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14. TRANSPORT INFORMATION

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

ADR

Not regulated as dangerous goods.

Further information	Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.
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15. REGULATORY INFORMATION

Labeling

R-phrases(s) None.

S-phrases(s) None.

Regulatory information	If the waste in the form of purchase, this product does not belong to the U.S. hazardous waste products out. Users should check if local laws and regulations on hazardous waste. Resource Recovery Act, the processing of the user responsible for determining: both will be included in the hazardous waste containing such materials or derivatives. (40CFR26120-24).
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Not included in the Dangerous Goods

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Rotterdam Convention

Not applicable.

Stockholm Convention

Not applicable.

16. OTHER INFORMATION

Wording of the R-phrases in sections 2 and 3 R36 Irritating to eyes.

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Prepared by Hewlett-Packard Company

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Version # 01

This data sheet contains changes from the previous version in section(s):
1. Product and Company Identification: Alternate Trade Names
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
GHS: Classification

Explanation of abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Cleveland Open Cup
DOT	Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act (aka SARA)
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
REC	Recommended
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act of 1986
STEL	Short-Term Exposure Limit
TCLP	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds