

MATERIAL SAFETY DATA SHEET

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

| | |
|--|--|
| Identification of the substance/preparation | EB22BL pigment Inkjet |
| Use of the substance/preparation | |
| Issue date | 10-May-2021 |
| Version # | 01 |
| CAS # | Mixture |
| Company identification | Zhuhai bentsai printing Technology 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, CO ₂ , 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 |
|----------------------|---------|--------------|
| <i>Other</i> 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 (<i>Daphnia pulex</i>) | 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. |
|------------------------------|--|

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.

15. REGULATORY INFORMATION

Labeling

R-phrases None.

S-phrases 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).

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 |