

### 1-Identification of the substance/preparation and of the company/undertaking

- **Product details**

**Product name:** Dye Ink

**Product type/code:** Black Ink

- **Application of the substance/the preparation :** Ink-Jet Printing

- **Manufacturer/Supplier:**

Zhuhai Seine Technology CO., Ltd.

No. 63, Mingzhubei Road, Xiangzhou District, Zhuhai, Guangdong, P. R. China

Postal code: 519075

Oversea sales department: Tel: +86 756 8539058 Fax: +86 756 8539216

- **Emergency Phone:** +86 800- 830- 7918 (24 hours hotline)

### 2-Hazards Identification

- **Hazard description:**

This product is not classified as hazard substance according to the EC Regulation 1272/2008(CLP).

- **Potential health effects:**

Potential routes of overexposure to this product are skin contact, eye contact and inhalation of vapor.

Ingestion is not expected to be a significant route of exposure for this product under normal use conditions.

- **Physical and Chemical Hazards:**

There is no toxicity data available for this specific formulation. The product does not contain substances classified as being hazardous to human health or the environment or the concentration of substance is lower than the restricted range according to the EC Regulation 1272/2008(CLP). The product does not contain SVHC according the newest REACH regulation. Any possible hazards are presumed to be due to exposure to the components.

**Information for Componets**

Glycerol

Eye Contact - May cause eye irritation.

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Skin Contact - May cause skin irritation.

Effects of Overexposure - Excessive exposure may cause gastrointestinal disturbances, nausea, headache and vomiting.

Diethylene glycol

Eye Contact - May cause mild eye irritation.

Skin Contact - May cause mild skin irritation.

Ingestion-Excessive exposure may cause liver and kidney damage, may cause central nervous system disturbances, headache, dizziness, drowsiness, and nausea.

Inhalation- May cause respiratory tract irritation.

2-Pyrrolidone

Eye Contact - Contact with eyes may result in irritation.

Skin Contact - Contact with the skin may result in irritation.




Inhalation - Inhalation may result in respiratory irritation.

Ingestion - Ingestion may result in gastric disturbances.

### 3-Composition/Information on Ingredients

• **Description:**

**Mixture: containing the following components. The classification is mainly based on pure substance. The concentration of the substance in the mixture is very lower than the pure substance. The main substance in the mixture is water.**

CAS No / EC No	Components / Formula / classification	Range of concentration
CAS: 56-81-5 EC: 200-289-5	Glycerol C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub>  Xn;  F; R36/R20/21/22-R11	1%-20%
CAS: 111-46-6 EC: 203-872-2	Diethylene glycol C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>  Xn; R22	0.1%-9%
CAS:616-45-5 EC:210-483-1	2-Pyrrolidinone C <sub>4</sub> H <sub>7</sub> NO /	0%-10%

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CAS: 7732-18-5	Water H <sub>2</sub> O	40-55%
	/	

- **Dye component** Black dye
- **Chemical family** Azo\*

### 4-First Aid Measures

**In case of contact, ingestion or inhalation, the following general measures provided for a first aid shall be taken.**

- **After eyes contact:**

Do not rub eyes. Immediately flush eyes with large amounts of clean, warm water (low pressure) for at least 15 minutes. If the irritation persists, seek medical advice.

- **After skin contact:**

Immediately wash affected areas with mild soap and water. If the irritation persists, seek medical advice.

- **After ingestion:**

Ingestion is not an expected route of exposure during normal use of the product. If ingested, seek medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.

- **After inhalation:**

Remove to fresh air. If respiration is difficult, administer artificial respiration and seek medical advice.

- **Indication of any immediate medical attention and special treatment needed:**

Follow doctor's orders.

### 5-Fire-fighting Measures

- **Suitable extinguishing agents:**

Dry chemical, carbon dioxide, water spray or regular foam

- **Extinguishing media which shall not be used for safety reasons:** Not known.

- **Special hazards arising from the substance or mixture:**

Product is a nonflammable water-based solution.

## Black Ink

Hazardous combustion products (gases/vapors) produced in fire can include carbon monoxide, carbon dioxide, nitrogen oxides, and smoke.

- **Flash point and method:** >93.3°C (200°F) Closed Cup
- **Approximate Flammable Limits in Air ,%by Volume:** Not available
- **Autoignition Temperature:** Not available
- **Fire Fighting Instructions:**

This product is not flammable. Use normal firefighting procedures for the area.

## 6-Accidental Release Measures

- **Personal precautions:**

Wear appropriate personal protective measures, avoid contact eyes and skin.

- **Environmental precautions:**

The product must not penetrate the sewer system, surface water, ground water and neighbouring areas.

Avoid birds or fish ingestion from drainage system, please thoroughly recycle.

- **Measures for cleaning/collecting:**

Transfer the leaked products to container. Absorb with inert absorbent such as dry, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

Flush a small amount of residue with large amounts of water and detergent.

- **Additional information:**

Any information on personal protection and disposal is given in sections 8 and 13.

## 7 - Handling and Storage

- **Handling:**

- **Information for safe handling:**

Wear appropriate personal protective measures, avoid contact eyes and skin.

Ventilation is well and far away from heat.

- **Information about fire-and explosion protection:**

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away. Do not smoke.

Protect against electrostatic charges.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Keep away from excessively alternate heat and cold, direct sunniness.

Keep away from strong acid, strong base and strong oxidizing agent.

Keep away from incompatible substance or mixtures.

Store in a cool, dry, ventilated area.

- **Further information about storage conditions:**

Keep container tightly sealed.

Keep out of the reach of children.

## 8-Exposure Controls, Personal Protection

- **Information about design of technical facilities:**

To provide proper ventilation, use adequate general or local exhaust ventilation.

- **Ingredients with limit values that require monitoring at the workplace:** No data available

- **Personal protective equipment:**

- **Respiratory protection:**

Respirators are not needed for normal use.

- **Eye/Face protection:**

Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of the material.

- **Body protection:**

If there is potential for significant dermal contact, wear appropriate impervious clothing and gloves.

## 9-Physical and Chemical Properties

- **General Information:**

**Form** Liquid

**Color** Black

**Odor** Slight

## Black Ink

- **Change in condition:**
  - Melting point** No data available
  - Freezing point** No data available
- **Flash point** >93.3°C (>200°F) Pensky-Martens Closed Cup
- **Flammability Limits in Air,**
  - upper, %by Volume** No data available
  - lower, %by Volume** No data available
- **Vapor pressure** No data available
- **Vapor density** No data available
- **Specific Gravity** > 1
- **Solubility in Water** Miscible
- **pH** 7-9
- **Viscosity** >1cp

## 10-Stability and Reactivity

- **Reactivity:**

There are no particular risks of reaction with other substances in normal conditions of use.
- **Chemical stability:**

The product is stable in normal conditions of use and storage.
- **Possibility of hazardous reactions:**

No hazardous reactions are foreseeable in normal conditions of use and storage.
- **Polymerization:**

Polymerization will not occur.
- **Hazardous decomposition products:**

No decomposition reaction occurs in normal conditions of use and storage.

## 11-Toxicological Information

- **Acute toxicity:**

Glycerol

## Black Ink

PEL (OSHA): None Established  
 TLV (ACGIH): None Established  
 LD50 (rat, oral) : >31.5 g/kg (RTECS)  
 LC50 (rat, inhalation/4 hr.): No data available

### Diethylene glycol

PEL (OSHA) : None Established  
 TLV (ACGIH) : None Established  
 LD50 (rat, oral) : >12565mg/kg(RTECS)  
 LC50 (rat, inhalation/4 hr.) : No data available

### 2-Pyrrolidone

PEL (OSHA) : None Established  
 TLV (ACGIH) : None Established  
 LD50 (rat, oral) : >8000mg/kg(RTECS)  
 LC50 (rat, inhalation/4 hr.) : No data available

### WATER

PEL (OSHA) : None Established  
 TLV (ACGIH) : None Established  
 LD50 (rat, oral) : No data available  
 LC50 (rat, inhalation/4 hr.) : No data available

- **Primary irritant effect:**

On the skin: No irritation

On the eyes: No data available

- **Local effect:** No

- **Sensitive:** No

- **Chronic or long-time toxicity:** No

## 12-Ecological Information

- **Environmental Data:**

No information available for product.

- **Mobility in soil and water**

No information available for product.

- **Persistence/Biodegradability**

No information available for product.

- **Ecotoxicity Data**

No information available for product.

## 13-Disposal Considerations

- **Product:**

**Waste Disposal**

Do not discharge into environment, directly. Disposal must be performed through an authorized waste management firm, in compliance with national and local regulations.

- **package**

**Waste Disposal**

Contaminated or damaged package must be recovered or disposed of in compliance with national waste management regulations.

## 14-Transport Information

- **International transport regulations:** Not strict rules.

**DOT (Domestic Surface)** Not regulated.

**ICAO/IATA (Air)** Not regulated.

**IMO/IMDG (Ocean)** Not regulated.

## 15-Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture.**

**CLP category** None

**Restrictions relating to the product or contained substances pursuant to Table 3.1 to EC**

**Regulation 1272/2008(CLP)** None

**Substances in Candidate List(SVHC in REACH)** None



## 16-Additional Information

- **Other information:**

This MSDS was prepared in accordance with CLP Regulation (EC) No.1272/2008, EU No 453/2010, EC No 1907/2006, REACH, GB/T16483-2008 and GB13690-2009.

- **Disclaimer:**

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

- **Abbreviations and acronyms:**

**ACGIH:** American Conference of Governmental Industrial Hygienists

**CAS:** Chemical Abstracts Service

**CLP:** Classification, Labeling and Packaging of substances and mixtures

**SVHC:** Substances of Very High Concern

**REACH:** Registration, Evaluation, Authorization and Restriction of Chemicals

**DOT:** Department of transportation

**EC:** Effective concentration

**EC50:** Effective concentration, 50 percent

**EINECS:** European Inventory of Existing Chemical Substance

**IAIA:** International Association for Impact Assessment

**ICAO:** International Civil Aviation Organization

**IMO:** International Maritime Organization

**IMDG:** International Maritime Dangerous Goods

**LC50:** Lethal concentration, 50 percent

**LD50:** Lethal dose, 50 percent

**NOEC:** No Observed Effect Concentration

**OSHA:** Occupational Safety and Health Administration (U.S.A.)

**STEL:** Short Term Exposure Limit

**TWA:** Time Weighted Average

**TLVTN:** Threshold Limit Value

**VOC:** Volatile Organic Compounds