



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** CE022Series

**Product use** Inkjet printing. For use only in inkjet printing

**Version #** 01

**Revision date** 06-Nov-2010

**CAS #** Mixture

**Company identification** Hewlett-Packard Company  
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## 2. Hazards Identification

**Emergency overview** Contact with skin and eyes may result in irritation.

### Acute health effects

Any potential hazards are presumed to be due to exposure to the components.

**Skin contact**  
*1-(2-hydroxyethyl)-2-pyrrolidone*  
Contact with skin may result in irritation.  
*Cyclo Amide*  
Contact with skin may result in irritation.

**Eye contact**  
*1-(2-hydroxyethyl)-2-pyrrolidone*  
Contact with eyes may result in irritation.  
*Cyclo Amide*  
Contact with eyes may result in irritation.

**Inhalation**  
*1-(2-hydroxyethyl)-2-pyrrolidone*  
Inhalation may result in respiratory irritation.  
*Cyclo Amide*  
Inhalation may result in respiratory irritation.

**Ingestion**  
*1-(2-hydroxyethyl)-2-pyrrolidone*  
Ingestion may result in nausea, vomiting and diarrhea.  
*Cyclo Amide*  
Swallowing large amounts may cause digestive discomfort.  
*Diethylene glycol*  
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

### Potential health effects

**Routes of exposure** Potential routes of overexposure to this product are skin and eye contact

Inhalation of vapor and ingestion are not expected to be significant routes of exposure for this product under normal use conditions.

Complete toxicity data are not available for this specific formulation

**Chronic health effects** None known.

**Carcinogenicity**

None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

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**3. Composition / Information on Ingredients**

Components	CAS #	Percent
Cyclo Amide	Proprietary	< 10
Diethylene glycol	111-46-6	< 5
Trade secret red colorant	Proprietary	< 5
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 2.5
1,2-Hexanediol	6920-22-5	< 2.5
Megaface F-444	N/A	< 0.1
Water	7732-18-5	>70

**Composition comments** This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

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**4. First Aid Measures****First aid procedures**

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

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**5. Fire Fighting Measures**

**Flammable properties** Hydrogen fluoride, a corrosive and toxic gas, and other potentially hazardous fluorine-containing compounds may be released upon combustion.

**Extinguishing media**

<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.

**Specific methods** None established.

**Hazardous combustion products** Refer to section 10.

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**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.

**Methods for containment** Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

**Methods for cleaning up** Soak up with inert absorbent material.

**Other information** Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

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**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.

Keep at temperatures between 15 and 35°C.

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## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### U.S. - WEEL

Components	Type	Value
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Diethylene glycol (111-46-6)	TWA	10.0000 mg/m3
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### Exposure guidelines

Exposure limits have not been established for this product.

### Personal protective equipment

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

#### General

Use personal protective equipment to minimize exposure to skin and eye.

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## 9. Physical & Chemical Properties

### Appearance

Not available.

### Color

Red

### Odor

Not available.

### Odor threshold

Not available.

### Physical state

Liquid

### Form

Not available.

### pH

8 - 10

### Melting point

Not available.

### Freezing point

Not available.

### Boiling point

Not available.

### Flash point

> 200 °F (> 93.3 °C) Pensky-Martens Closed Cup

### Evaporation rate

Not available.

### Flammability limits in air, upper, % by volume

Not available.

### Flammability limits in air, lower, % by volume

Not available.

### Vapor pressure

Not available.

### Vapor density

Not available.

### Specific gravity

1 - 1.1

### Relative density

Not available.

### Solubility (water)

Not available.

### Auto-ignition temperature

Not available.

### Decomposition temperature

Not available.

### VOC

< 174 g/L

### Other information

VOC content (less water, less exempt compounds) = < 942 g/L (U.S. requirement, not for emissions)

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## 10. Chemical Stability & Reactivity Information

### Chemical stability

Stable under recommended storage conditions.

### Incompatible materials

Incompatible with strong bases and oxidizing agents.

### Hazardous decomposition products

Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons., fluorinated hydrocarbons and hydrogen fluoride.

### Possibility of hazardous reactions

None known.

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## 11. Toxicological Information

### Serious eye damage/eye irritation

Not available.

### Skin sensitization

Not available.

**Further information**

This ink formulation has not been tested for toxicological effects.  
Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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**12. Ecological Information**

**Persistence and degradability** Not available.

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**13. Disposal Considerations**

**Disposal instructions** Dispose of in compliance with federal, state, and local regulations.

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**14. Transport Information**

**Further information** Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

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**15. Regulatory Information**

**US federal regulations** US TSCA 12(b): Does not contain listed chemicals.  
US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

**CERCLA (Superfund) reportable quantity**

None

**Occupational Safety and Health Administration (OSHA)**

**29 CFR 1910.1200 hazardous chemical** No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**State regulations****US - Pennsylvania RTK - Hazardous Substances: Listed substance**

Diethylene glycol (CAS 111-46-6) Listed.

**Regulatory information** All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

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**16. Other Information**

**Other information** This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

**HMIS® ratings** Health: 1  
Flammability: 1  
Physical hazard: 0

**NFPA ratings** Health: 1  
Flammability: 1  
Instability: 0

**Disclaimer**

This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

**Issue date**

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**Manufacturer information**

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**Explanation of abbreviations**

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