



# Safety Data Sheet

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

Identification of the substance/preparation	CG326Series
Use of the preparation	Inkjet printing
Revision date	28-Oct-2009
CAS #	Mixture
Company identification	Hewlett-Packard, Ltd. Cain Road, Amen Corner Bracknell, Berkshire, RG12 1HN Telephone 1 344 36-0000  Hewlett-Packard health effects line (Toll-free within the US) 1-800-457-4209 (Direct) 1-503-494-7199 HP Customer Care Line (Toll-free within the US) 1-800-474-6836 (Direct) 1-208-323-2551 Email: hpcustomer.inquiries@hp.com Poison Information Center 0207771 5307

## 2. HAZARDS IDENTIFICATION

### 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.  
*Aliphatic diol*  
Contact with skin may result in irritation.

#### Eye contact

*1-(2-hydroxyethyl)-2-pyrrolidone*  
Contact with eyes may result in irritation.  
*Aliphatic diol*  
Contact with eyes may result in irritation.

#### Inhalation

*1-(2-hydroxyethyl)-2-pyrrolidone*  
Inhalation may result in respiratory irritation.  
*Aliphatic diol*  
Inhalation may result in respiratory irritation.

#### Ingestion

*1-(2-hydroxyethyl)-2-pyrrolidone*  
Ingestion may result in nausea, vomiting and diarrhea.  
*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.

#### Physical hazards

Not classified as a physical hazard.

#### Health hazards

Not classified as a health hazard.

#### Environmental hazards

Not classified as an environmental hazard.



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## Other information

This blue ink is not classified according to EU Directive 1999/45/EC.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight	EU number	EU classification
Water	7732-18-5	>70	231-791-2	
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10	222-359-4	
Aliphatic diol	Proprietary	< 10	Proprietary	
Diethylene glycol	111-46-6	< 5	203-872-2	Xn, R22
<b>Composition comments</b>	This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended. For the full text of the R phrases mentioned in this Section, see Section 16.			

### 4. FIRST AID MEASURES

<b>Inhalation</b>	Remove to fresh air. If symptoms persist, 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>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>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.

### 5. FIRE-FIGHTING MEASURES

<b>Flash point and method</b>	> 82.2 °C (> 180 °F) (Closed Cup)
<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Extinguishing media which must not be used for safety reasons</b>	None known.
<b>Unusual fire &amp; explosion hazards</b>	Combustion generates toxic fumes of Acetylene. Risk of explosion if heated.
<b>Hazardous combustion products</b>	Refer to section 10.
<b>Specific methods</b>	None established.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear appropriate personal protective equipment.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
<b>Containment procedures</b>	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.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

### 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep out of the reach of children. Keep away from excessive heat or cold. Keep at temperatures between 15 and 35°C.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational exposure limits

#### Denmark

Components	Type	Value
Diethylene glycol (111-46-6)	TLV	2.5 ppm



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Components	Type	Value
		11 mg/m3

## Germany

Components	Type	Value
Diethylene glycol (111-46-6)	AGW	10 ppm 44 mg/m3

## Sweden

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	90 mg/m3 20 ppm
	TWA	45 mg/m3 10 ppm

## Switzerland

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	176 mg/m3 40 ppm
	TWA	44 mg/m3 10 ppm

## United Kingdom

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	23 ppm 101 mg/m3

<b>Additional exposure data</b>	Exposure limits have not been established for this product.
<b>Personal protective equipment</b>	
<b>Hand protection</b>	Nitrile gloves are recommended.
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Not available.
<b>Color</b>	Blue
<b>Odor</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	9
<b>Boiling point</b>	Not available.
<b>Flash point</b>	> 82.2 °C (> 180 °F) (Closed Cup)
<b>Flammability</b>	Not available.



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<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Specific gravity</b>	1 - 1.1
<b>VOC</b>	< 214 g/l

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## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	Incompatible with strong bases and oxidizing agents.
<b>Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Hazardous polymerization</b>	None known.

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## 11. TOXICOLOGICAL INFORMATION

<b>Further information</b>	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

<b>Ecotoxicity</b>	96.00 Hours, LC50 > 750 mg/l, fathead minnow (pimephales promelas)
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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	Dispose of in compliance with federal, state, and local regulations.
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## 14. TRANSPORT INFORMATION

### ADR

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### IATA

Not regulated as hazardous goods.

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

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## 15. REGULATORY INFORMATION

<b>International regulations</b>	Listed in: Switzerland and European Union
<b>Labeling</b>	
<b>Contains</b>	1-(2-hydroxyethyl)-2-pyrrolidone, Aliphatic diol, Diethylene glycol, Water
<b>EC Label</b>	This product does not require a label according to EU Directive 1999/45/EC.



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## 16. OTHER INFORMATION

<b>Manufacturer information</b>	Hewlett-Packard Company 1000 NE Circle Boulevard Corvallis, OR 97330-4239 US (Direct) 1-503-494-7199 (Toll-free within the US) 1-800-457-4209
<b>List of relevant R phrases</b>	R22 Harmful if swallowed.
<b>Other information</b>	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
<b>Disclaimer</b>	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.
<b>Issue date</b>	28-Oct-2009
<b>Explanation of abbreviations</b>	
<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