



Safety Data Sheet

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

Identification of the substance/preparation	CG334Series
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.



Safety Data Sheet

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
Composition comments	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

Inhalation	Remove 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 (low 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.

5. FIRE-FIGHTING MEASURES

Flash point and method	> 82.2 °C (> 180 °F) (Closed Cup)
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	Combustion generates toxic fumes of Acetylene. Risk of explosion if heated.
Hazardous combustion products	Refer to section 10.
Specific methods	None established.

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.
Containment procedures	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.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Denmark

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



Safety Data Sheet

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

Additional exposure data	Exposure limits have not been established for this product.
Personal protective equipment	
Hand protection	Nitrile gloves are recommended.
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	Not available.
Physical state	Liquid.
Form	Not available.
Color	Blue
Odor	Not available.
Odour threshold	Not available.
pH	9
Boiling point	Not available.
Flash point	> 82.2 °C (> 180 °F) (Closed Cup)
Flammability	Not available.



Safety Data Sheet

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

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Materials to avoid	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.
Hazardous polymerization	None known.

11. TOXICOLOGICAL INFORMATION

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

Ecotoxicity	96.00 Hours, LC50 > 750 mg/l, fathead minnow (pimephales promelas)
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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

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.

15. REGULATORY INFORMATION

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



Safety Data Sheet

16. OTHER INFORMATION

Manufacturer information	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
List of relevant R phrases	R22 Harmful if swallowed.
Other information	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
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	28-Oct-2009
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