



# Safety Data Sheet

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

**Identification of the substance/preparation** C9442 Series

**Use of the preparation** Inkjet printing

**Revision date** 21-Nov-2009

**Company identification** Hewlett-Packard, Ltd.  
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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

*2-pyrrolidone*  
Contact with skin may result in irritation.

*Alkyldiol*  
Contact with skin may result in irritation.

#### Eye contact

*2-pyrrolidone*  
Contact with eyes may result in irritation.

*Alkyldiol*  
Contact with eyes may result in irritation.

#### Inhalation

*2-pyrrolidone*  
Inhalation may result in respiratory irritation.

*Alkyldiol*  
Inhalation may result in respiratory irritation.

#### Ingestion

*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.

#### Other information

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



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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight	EU number	EU classification
Water	7732-18-5	< 80	231-791-2	
2-pyrrolidone	616-45-5	< 10	210-483-1	Xi, R36/38
Diethylene glycol	111-46-6	< 7.5	203-872-2	Xn, R22
Alkyldiol	Proprietary	< 5	Proprietary	
<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>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<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 material is ingested, immediately contact a physician or poison control centre.

## 5. FIRE-FIGHTING MEASURES

<b>Flash point and method</b>	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
<b>Suitable extinguishing media</b>	CO2, water, dry chemical, or 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 fluorides/fluorine compounds; aldehydes; ketones..
<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.

## 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. Store away from strong oxidizers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### Denmark

Components	Type	Value
Diethylene glycol (111-46-6)	TLV	2.5 ppm 11 mg/m3

#### Germany

Components	Type	Value
Diethylene glycol (111-46-6)	AGW	10 ppm



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Components	Type	Value
		44 mg/m <sup>3</sup>

## Sweden

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	90 mg/m <sup>3</sup>
		20 ppm
	TWA	45 mg/m <sup>3</sup>
		10 ppm

## Switzerland

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	176 mg/m <sup>3</sup>
		40 ppm
	TWA	44 mg/m <sup>3</sup>
		10 ppm

## United Kingdom

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	23 ppm
		101 mg/m <sup>3</sup>

**Additional exposure data** Exposure limits have not been established for this product.

### Personal protective equipment

#### 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

<b>Appearance</b>	Not available.
<b>Physical state</b>	Not available.
<b>Form</b>	Not available.
<b>Color</b>	Yellow
<b>Odor</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	9.2
<b>Boiling point</b>	Not determined
<b>Flash point</b>	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
<b>Flammability</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not determined
<b>Vapor pressure</b>	Not determined
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Partition coefficient (n-octanol/water)</b>	Not available.



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Viscosity	Not available.
Vapor density	> 1 (air = 1.0)
Evaporation rate	Not determined
Melting point	Not available.
Freezing point	Not available.
Auto-ignition temperature	Not determined
Specific gravity	1 - 1.1

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## 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. aldehydes, ketones, hydrogen fluoride, fluorinated hydrocarbons
Hazardous polymerization	Will not occur.

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## 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 aide measures.
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## 12. ECOLOGICAL INFORMATION

Aquatic toxicity	LC50/96h/Fathead minnows => 750 mg/L
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## 13. DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose of in compliance with federal, state, and local regulations. HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
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## 14. TRANSPORT INFORMATION

### ADR

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### IATA

Proper shipping name	Not applicable
Hazard class	Not applicable
UN number	None
Packing group	N/A
Packaging exceptions	None

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

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## 15. REGULATORY INFORMATION

International regulations	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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### Labeling

Contains	2-pyrrolidone, Alkyldiol, Diethylene glycol, Water
EC Label	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. R36/38 Irritating to eyes and skin.
<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>	21-Nov-2009
<b>This data sheet contains changes from the previous version in section(s):</b>	TOXICOLOGICAL INFORMATION: Further information TRANSPORT INFORMATION: General
<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