



# SAFETY DATA SHEET

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

Identification of the substance/preparation C4909A  
Use of the preparation Inkjet printing  
Revision date 12-23-2008  
CAS # Mixture  
Company identification Hewlett-Packard, Ltd.  
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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  
Poison Information Center 0207771 5307

## 2. HAZARDS IDENTIFICATION

### Acute health effects

#### Skin contact

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

*1-(2-hydroxyethyl)-2-pyrrolidone*

Contact with skin may result in irritation.

*2-pyrrolidone*

Contact with skin may result in irritation.

*Aliphatic diol*

Contact with skin may result in irritation.

*Alkoxy ether phosphate*

Contact with skin may result in severe irritation.

*Tetraethylene glycol*

Contact with skin may result in irritation.

*Yellow pigment*

Contact with skin may result in irritation.

#### Eye contact

*1-(2-hydroxyethyl)-2-pyrrolidone*

Contact with eyes may result in irritation.

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Aliphatic diol*

Contact with eyes may result in irritation.

*Alkoxy ether phosphate*

Contact with eyes may result in irritation.

*Tetraethylene glycol*

Contact with eyes may cause irritation.

*Yellow pigment*

Contact with eyes may result in irritation.



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## Inhalation

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

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

*Aliphatic diol*  
Inhalation may result in respiratory irritation.

*Alkoxy ether phosphate*  
Inhalation may result in respiratory irritation.

*Tetraethylene glycol*  
Inhalation may result in respiratory irritation.

## Ingestion

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

*2-pyrrolidone*  
Ingestion may result in nausea, vomiting and diarrhea.

*Alkoxy ether phosphate*  
Irritating to mouth, throat, and stomach.

## 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.

## 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	
2-pyrrolidone	616-45-5	< 10	210-483-1	R36/38
Aliphatic diol	Proprietary	< 5	Proprietary	
Tetraethylene glycol	112-60-7	< 5	203-989-9	R36/37/38
Yellow pigment	No Data	< 5		
Alkoxy ether phosphate	Proprietary	< 2	Proprietary	Xi, R38, 41

### 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

Move to fresh air. If symptoms persist, get medical attention.

### Skin contact

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

### 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.



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## 5. FIRE-FIGHTING MEASURES

Flash point and method	> 110 °C (> 230 °F) US EPA Method 1020; Setaflash Closed Tester
Suitable extinguishing media	CO <sub>2</sub> , water, dry chemical, or foam
Extinguishing media which must not be used for safety reasons	None known.
Unusual fire & explosion hazards	Combustion generates toxic fumes of fluoride and/or fluorine compounds; phosphorous oxides.
Hazardous combustion products	Refer to section 10.
Specific methods	Wear self contained breathing apparatus for fire fighting if necessary.

## 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.

## 7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing.
Storage	Keep away from excessive heat or cold. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limits

#### Germany

Components	CAS #	TWA	MAK	Ceiling
Tetraethylene glycol	112-60-7	1000 mg/m <sup>3</sup>	Not established	Not established

#### Netherlands

Components	CAS #	TWA (MAC)	STEL	Ceiling
Tetraethylene glycol	112-60-7	1000 mg/m <sup>3</sup>	Not established	Not established

#### Switzerland

Components	CAS #	TWA	STEL
Tetraethylene glycol	112-60-7	1000 mg/m <sup>3</sup>	Not established

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

Appearance	Not available.
Physical state	Liquid.
Form	Not available.
Color	Yellow



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<b>Odor</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	8.7 - 9.1
<b>Boiling point</b>	Not determined
<b>Flash point</b>	> 110 °C (> 230 °F) US EPA Method 1020; Setaflash Closed Tester
<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.
<b>Viscosity</b>	> 3 cP
<b>Vapor density</b>	> 1 (air = 1.0)
<b>Evaporation rate</b>	Not determined
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Auto-ignition temperature</b>	Not determined
<b>Specific gravity</b>	1 - 1.1

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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. Decomposition of this product may yield oxides of phosphorus. hydrogen fluoride fluorinated hydrocarbons
<b>Hazardous polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

<b>Further information</b>	This ink formulation has not been tested for toxicological effects. Refer to Section 3 for potential health effects and Section 4 for first aide measures.
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## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	96.00 hr, 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. 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.



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## IATA

Not regulated as dangerous goods.

### General

Not a regulated article 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.

### Labeling

#### Contains

1-(2-hydroxyethyl)-2-pyrrolidone, 2-pyrrolidone, Aliphatic diol, Alkoxy ether phosphate, Tetraethylene glycol, Water, Yellow pigment

### EC Label

This product does not require a label according to EU Directive 1999/45/EC.

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## 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

### 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

12-23-2008

### 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