



# SAFETY DATA SHEET

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

**Identification of the preparation** C4909 Series

**Use of the substance/preparation** Inkjet printing

**Version No.** 03

**Revision date** 18-Oct-2012

**CAS #** Mixture

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## 2. HAZARDS IDENTIFICATION

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

### 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.

**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.

**Other information**

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

**Classification**

Not classified.

**Physical hazards**

Not classified as a physical hazard.

**Health hazards**

Not classified as a health hazard.

**Environmental hazards**

Not classified as an environmental hazard.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS #	Percent	EC-No.	Classification
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10	222-359-4	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	Xi;R36/38
Aliphatic diol	Proprietary	< 5	Proprietary	
Alkoxy ether phosphate	Proprietary	< 2	Proprietary	Xi;R38-41
Tetraethylene glycol	112-60-7	< 5	203-989-9	
Water	7732-18-5	> 70	231-791-2	
Yellow pigment	Proprietary	< 5	Proprietary	

**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.

**General advice**

No additional information

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media** CO<sub>2</sub>, 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 fluoride and/or fluorine compounds; phosphorus oxides.
<b>Specific methods</b>	Wear self contained breathing apparatus for fire fighting if necessary.
<b>Hazardous combustion products</b>	Refer to section 10.

## 6. ACCIDENTAL RELEASE MEASURES

<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>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>Methods for cleaning up</b>	Soak up with inert absorbent material.
<b>Other information</b>	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.

## 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limit values

#### Switzerland Components

	Type	Value
Tetraethylene glycol (112-60-7)	TWA	1000.0000 mg/m3

<b>Additional exposure data</b>	Exposure limits have not been established for this product.
<b>Exposure controls</b>	Use in a well ventilated area.
<b>Occupational exposure controls</b>	
<b>Skin and body protection</b>	Not available.
<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 practices.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Not available.
<b>Colour</b>	Yellow
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	8.7
<b>Boiling point</b>	Not determined
<b>Flash point</b>	110 °C (230 °F) Setaflash Closed Tester US EPA Method 1020
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not determined
<b>Vapour 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>Vapour density</b>	Not available.

<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
<b>Other information</b>	For other VOC regulatory data/information see Section 15.

## 10. STABILITY AND REACTIVITY

<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>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	Incompatible with strong bases and oxidizing agents.
<b>Hazardous polymerisation</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Serious eye damage/eye irritation</b>	Not available.
<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.

## 12. ECOLOGICAL INFORMATION

<b>Aquatic toxicity</b>	This product has not been tested for ecological effects.
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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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

<b>Further information</b>	Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.
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### ADR

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

## 15. REGULATORY INFORMATION

### 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.

**Regulatory information** The components of this product are reported in the following inventories: United States of America, European Union, Switzerland, Canada, Australia, Philippines, Korea, New Zealand and China.

## Other information

Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments).

Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments).

Switzerland VOC incentive tax - Contains >3% total VOCs but does not contain VOCs which are subject for taxation.

## 16. OTHER INFORMATION

### Wording of the R-phrases in sections 2 and 3

R36/38 Irritating to eyes and skin.  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.

### 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

18-Oct-2012

### This data sheet contains changes from the previous version in section(s):

PHYSICAL AND CHEMICAL PROPERTIES: Other information  
REGULATORY INFORMATION: Regulatory information  
REGULATORY INFORMATION: Other information

### 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: &lt;value&gt;</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds