1. Product and Company Identification

Identification of the preparation
C4901Series[C]

Product use
Inkjet printing

Version #
06

Revision date
18-Oct-2012

CAS #
Mixture

Company identification
Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

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

2. Hazards Identification

Emergency overview
Contact with skin and eyes may result in irritation.

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.

2-pyrrolidine
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.

Cyan pigment
Contact with skin may result in irritation.

Tetraethylene glycol
Contact with skin may result in irritation.

Eye contact
1-(2-hydroxyethyl)-2-pyrrolidone
Contact with eyes may result in irritation.

2-pyrrolidine
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.

Cyan pigment
Contact with eyes may result in irritation.

Tetraethylene glycol
Contact with eyes may cause 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.

**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.

### 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-(2-hydroxyethyl)-2-pyrrolidone</td>
<td>3445-11-2</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Aliphatic diol</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkoxy ether phosphate</td>
<td>Proprietary</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>Cyan pigment</td>
<td>Proprietary</td>
<td>&lt; 3</td>
</tr>
<tr>
<td>Tetraethylene glycol</td>
<td>112-60-7</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 70</td>
</tr>
</tbody>
</table>

**Composition comments**

This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

### 4. First Aid Measures

**First aid procedures**

**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.

**Skin contact**

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

**Inhalation**

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

**Ingestion**

If ingestion of a large amount does occur, seek medical attention.

**General advice**

No additional information

### 5. Fire Fighting Measures

**Flammable properties**

Combustion generates toxic fumes of fluoride and/or fluorine compounds; phosphorus oxides.
Extinguishing media
Suitable extinguishing media
CO2, water, dry chemical, or foam
Unsuitable extinguishing media
None known.
Specific methods
Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous combustion products
Refer to section 10.

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.
Methods for containment
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.
Other information
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

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

8. Exposure Controls / Personal Protection

Exposure guidelines
Exposure limits have not been established for this product.
Engineering controls
Use in a well ventilated area.
Personal protective equipment
Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance
Not available.
Color
Cyan
Odor
Not available.
Odor threshold
Not available.
Physical state
Liquid
Form
Not available.
PH
8.7
Melting point
Not available.
Freezing point
Not available.
Boiling point
Not determined
Flash point
230 °F (110 °C) Setaflash Closed Tester US EPA Method 1020
Evaporation rate
Not determined
Flammability limits in air, upper, % by volume
Not available.
Flammability limits in air, lower, % by volume
Not determined
Vapor pressure
Not determined
Vapor density
Not available.
Specific gravity
1
Relative density
Not available.
Solubility (water)
Soluble in water
Auto-ignition temperature
Not determined
Decomposition temperature
Not available.
Viscosity
3 cP

Material name: C4901Series[C]
10793    Version #: 06    Revision date: 18-Oct-2012    Print date: 18-Oct-2012
10. Chemical Stability & Reactivity Information

Chemical stability
Stable under recommended storage conditions.

Incompatible materials
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. Decomposition of this product may yield oxides of phosphorus.
hydrogen fluoride
fluorinated hydrocarbons

 Possibility of hazardous reactions
Will not occur.

11. Toxicological Information

Serious eye damage/eye irritation
Not available.

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.

12. Ecological Information

Aquatic toxicity
This product has not been tested for ecological effects.

Persistence and degradability
Not available.

13. Disposal Considerations

Disposal instructions
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 http://www.hp.com/recycle.

14. Transport Information

Further information
Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

DOT
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

US federal regulations
US TSCA 12(b): Does not contain listed chemicals.

 DEA Exempt Chemical Mixtures Code Number
Not regulated.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
Not listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA (Superfund) reportable quantity
None
16. Other Information

Other information

This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

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):

- Product and Company Identification: Alternate Trade Names
- Physical & Chemical Properties: Other information
- 15. Regulatory Information: Regulatory information
- 15. Regulatory Information: Other information
Material name: C4901Series[C]

10793  Version #: 06  Revision date: 18-Oct-2012  Print date: 18-Oct-2012
1. Product and Company Identification

Identification of the preparation
C4901Series[M]

Product use
Inkjet printing

Version #
04

Revision date
18-Oct-2012

CAS #
Mixture

Company identification
Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
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2. Hazards Identification

Emergency overview
Contact with skin and eyes may result in irritation.

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.

2-pyrrolidone
Contact with skin may result in irritation.

Aliphatic diol
Contact with skin may result in irritation.

Magenta pigment
Contact with skin may result in irritation.

Tetraethylene glycol
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.

Magenta pigment
Contact with eyes may result in irritation.

Tetraethylene glycol
Contact with eyes may cause 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.

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.

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.

3. Composition / Information on Ingredients

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<td>Water</td>
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Composition comments
This ink supply contains an aqueous ink formulation.
This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

4. First Aid Measures

First aid procedures

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.

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

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

Ingestion
If ingestion of a large amount does occur, seek medical attention.

General advice
No additional information

5. Fire Fighting Measures

Flammable properties
Combustion generates toxic fumes of fluoride and/or fluorine compounds; phosphorus oxides.

Extinguishing media
Suitable extinguishing media
CO2, water, dry chemical, or foam

Unsuitable extinguishing media
None known.

Specific methods
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Refer to section 10.

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.

Methods for containment
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.
Other information
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
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 guidelines
Exposure limits have not been established for this product.

Engineering controls
Use in a well ventilated area.

Personal protective equipment

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

General
Use personal protective equipment to minimize exposure to skin and eye.

9. Physical & Chemical Properties

Appearance
Not available.

Color
Magenta

Odor
Not available.

Odor threshold
Not available.

Physical state
Liquid

Form
Not available.

pH
8.7

Melting point
Not available.

Freezing point
Not available.

Boiling point
Not determined

Flash point
230 °F (110 °C) Setaflash Closed Tester US EPA Method 1020

Evaporation rate
Not determined

Flammability limits in air, upper, % by volume
Not determined

Flammability limits in air, lower, % by volume
Not determined

Vapor pressure
Not determined

Vapor density
Not available.

Specific gravity
1

Relative density
Not available.

Solubility (water)
Soluble in water

Auto-ignition temperature
Not determined

Decomposition temperature
Not available.

Viscosity
3 cP

VOC
< 313 g/l

Other information
For other VOC regulatory data/information see section 15.

10. Chemical Stability & Reactivity Information

Chemical stability
Stable under recommended storage conditions.

Incompatible materials
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. Decomposition of this product may yield oxides of phosphorus. Hydrogen fluoride fluorinated hydrocarbons

Possibility of hazardous reactions
Will not occur.
### 11. Toxicological Information

**Serious eye damage/eye irritation**
Not available.

**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.

### 12. Ecological Information

**Aquatic toxicity**
This product has not been tested for ecological effects.

**Persistence and degradability**
Not available.

### 13. Disposal Considerations

**Disposal instructions**
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 http://www.hp.com/recycle.

### 14. Transport Information

**Further information**
Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

**DOT**
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

**US federal regulations**
US TSCA 12(b): Does not contain listed chemicals.

**DEA Exempt Chemical Mixtures Code Number**
Not regulated.

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**
Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**
Not listed.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
Not regulated.

**CERCLA (Superfund) reportable quantity**
None

**Occupational Safety and Health Administration (OSHA)**
29 CFR 1910.1200 hazardous chemical
No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**
- Immediate Hazard - No
- Delayed Hazard - No
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

**Section 302 extremely hazardous substance**
No

**Section 311 hazardous chemical**
No
State regulations

US. Massachusetts RTK - Substance List
2-pyrrolidone (CAS 616-45-5)

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
2-pyrrolidone (CAS 616-45-5) Listed.

US. Rhode Island RTK
Not regulated.

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


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).

VOC content (less water, less exempt compounds) = <1150 g/L (U.S. requirement, not for emissions).

VOC data based on formulation (Organic compounds minus solids)

16. Other Information

Other information

This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Disclaimer

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Issue date

18-Oct-2012

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

Product and Company Identification: Alternate Trade Names
9. Physical & Chemical Properties: Other information
15. Regulatory Information: Regulatory information
15. Regulatory Information: Other information

Manufacturer information

Hewlett-Packard Company
3000 Hanover Street
Palo Alto, California 94304-1112 US
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209
### Explanation of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response Compensation and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COC</td>
<td>Cleveland Open Cup</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
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<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act (aka SARA)</td>
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<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
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<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
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<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<td>REC</td>
<td>Recommended</td>
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<td>REL</td>
<td>Recommended Exposure Limit</td>
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<td>Superfund Amendments and Reauthorization Act of 1986</td>
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<td>STEL</td>
<td>Short-Term Exposure Limit</td>
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<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
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<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
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