$C4901 Series [C]-MSDS\_US-English-05.pdf$ 

 $C4901 Series [M]-MSDS\_US-English-02.pdf$ 



# MATERIAL SAFETY DATA SHEET

# 1. Product and Company Identification

**Identification of the** 

preparation

C4901Series[C]

**Product use** Inkjet printing

Version # 04

Revision date 08-Dec-2011
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-h

*1-(2-hydroxyethyl)-2-pyrrolidone*Contact with skin may result in irritation.

Contact with Skin may result in imitation.

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.

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-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.

Cyan pigment

Contact with eyes may result in irritation.

Tetraethylene glycol

Contact with eyes may cause irritation.

Material name: C4901Series[C] MSDS US

10793 Version #: 04 Revision date: 08-Dec-2011 Print date: 08-Dec-2011

**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.

3. Composition /	Information on .	Ingredients
_		

Components	CAS #	Percent
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10
2-pyrrolidone	616-45-5	< 7.5
Aliphatic diol	Proprietary	< 5
Alkoxy ether phosphate	Proprietary	< 2
Cyan pigment	Proprietary	< 3
Tetraethylene glycol	112-60-7	< 5
Water	7732-18-5	> 70

**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.

InhalationMove to fresh air. If symptoms persist, get medical attention.IngestionIf ingestion of a large amount does occur, seek medical attention.

### 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

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** Cyan

Odor Not available.
Odor threshold Not available.

Physical state Liquid

Form Not available.

**pH** 8.7

Melting pointNot available.Freezing pointNot available.Boiling pointNot determined

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

Evaporation rate
Flammability limits in air,

upper, % by volume

Not determined Not available.

Flammability limits in air, lower, % by volume

Not determined

Vapor pressureNot determinedVapor densityNot available.

Specific gravity 1

Relative densityNot available.Solubility (water)Soluble in waterAuto-ignition temperatureNot determinedDecomposition temperatureNot available.

Viscosity 3 cP

**VOC** < 307 g/l

# 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 TSCA** 12(b): Does not contain listed chemicals.

**CERCLA (Superfund) reportable quantity** 

None

Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200** No

hazardous chemical

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

No

hazardous substance

Section 311 hazardous

chemical State regulations

No

# US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (CAS 616-45-5)

Listed.

**Regulatory information** 

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.

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). VOC content (less water, less exempt compounds) = <1184 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 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 quaranteeing 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** 08-Dec-2011

**Hewlett-Packard Company Manufacturer information** 

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**

**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



# MATERIAL SAFETY DATA SHEET

# 1. Product and Company Identification

**Identification of the** 

preparation

C4901Series[M]

**Product use** Inkjet printing

Version # 02

**Revision date** 09-Dec-2011 **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-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-pvrrolidone

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

CAS#	Percent
3445-11-2	< 10
616-45-5	< 7.5
Proprietary	< 5
Proprietary	< 5
112-60-7	< 5
7732-18-5	> 65
	3445-11-2 616-45-5 Proprietary Proprietary 112-60-7

**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.

InhalationMove to fresh air. If symptoms persist, get medical attention.IngestionIf ingestion of a large amount does occur, seek medical attention.

# **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.

Material name: C4901Series[M]

### 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

Not available. **Appearance** Color Magenta Odor Not available. **Odor threshold** Not available. **Physical state** Liquid

**Form** Not available.

8.7 Hα

**Melting point** Not available. Freezing point Not available. **Boiling point** Not determined

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

**Evaporation rate** Not determined Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air,

lower, % by volume

Not determined

Not determined Vapor pressure Not available. Vapor density

Specific gravity 1

**Relative density** Not available. Solubility (water) Soluble in water Not determined **Auto-ignition temperature Decomposition temperature** Not available.

**Viscosity** 3 cP VOC < 313 g/l

# 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.

**CERCLA (Superfund) reportable quantity** 

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 No hazardous chemical

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

No

chemical

#### State regulations

# US - Pennsylvania RTK - Hazardous Substances: Listed substance

Listed. 2-pyrrolidone (CAS 616-45-5)

**Regulatory information** 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.

Material name: C4901Series[M] MSDS US

10794 Version #: 02 Revision date: 09-Dec-2011 Print date: 09-Dec-2011

#### 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). 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** 

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 09-Dec-2011

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

Product and Company Identification: Alternate Trade Names Composition / Information on Ingredients: Ingredients 5. Fire Fighting Measures: Flammable properties

6. Accidental Release Measures: Methods for containment8. Exposure Controls / Personal Protection: Engineering controls

9. Physical & Chemical Properties: Color

9. Physical & Chemical Properties: Other information

Ecological Information: Ecotoxicity
12. Ecological Information: Ecotoxicity
12. Ecological Information: Aquatic toxicity
13. Disposal Considerations: Disposal instructions
14. Transport Information: Further information
Regulatory Information: Risk Phrases - Class.
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

Material name: C4901Series[M] MSDS US

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10794 Version #: 02 Revision date: 09-Dec-2011 Print date: 09-Dec-2011

# **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

Material name: C4901Series[M] MSDS US

10794 Version #: 02 Revision date: 09-Dec-2011 Print date: 09-Dec-2011