

51641Series[C]-MSDS\_US-English-03.pdf

51641Series[M]-MSDS\_US-English-03.pdf

51641Series[Y]-MSDS\_US-English-03.pdf



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** 51641Series[C]  
**Product use** Inkjet printing  
**Version #** 03  
**Revision date** 25-Oct-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.

Causes skin irritation.

### Acute health effects

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

#### Skin contact

*1,5-pentanediol*

Contact with skin may result in irritation.

*2-pyrrolidone*

Contact with skin may result in irritation.

*Alkyldiol ethoxylate*

Contact with skin may result in severe irritation.

*Ethyl alkyldiol*

Contact with skin may result in mild irritation.

*Metal nitrate # 2*

Contact with skin may result in irritation.

#### Eye contact

*1,5-pentanediol*

Contact with eyes may result in irritation.

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Alkyldiol ethoxylate*

Contact can cause moderate to severe irritation and possible injury to the eyes.

*Ethyl alkyldiol*

Contact with eyes may result in mild irritation.

*Metal nitrate # 2*

Contact with eyes may result in irritation.

#### Inhalation

*2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Metal nitrate # 2*

Inhalation may result in respiratory irritation.

**Ingestion***2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

*Alkyldiol ethoxylate*

Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.

*Metal nitrate # 2*

Contains nitrate salts, may cause methemoglobinemia.

*Substituted phthalocyanine salt # 2*

Harmful if swallowed.

**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**

Substituted phthalocyanine salt: Prolonged ingestion exposure may cause serious damage to health.

**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
Water	7732-18-5	60 - 70
1,5-pentanediol	111-29-5	7.5 - 10
2-pyrrolidone	616-45-5	5 - 7.5
Ethyl alkyldiol	Proprietary	5 - 7.5
Metal nitrate # 2	Proprietary	5 - 7.5
Alkyldiol ethoxylate	Proprietary	1 - 2.5
Substituted phthalocyanine salt # 2	Proprietary	1 - 2.5

**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. Get medical attention if irritation develops or persists.

**Inhalation**

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

**Ingestion**

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

**5. Fire Fighting Measures****Flammable properties**

None known.

**Extinguishing media****Suitable extinguishing media**

Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Unsuitable extinguishing media**

None known.

**Specific methods**

None established.

**Hazardous combustion products**

Refer to section 10.

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## 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.
<b>Methods for containment</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>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.

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## 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.

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## 8. Exposure Controls / Personal Protection

<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Engineering controls</b>	Use in a well ventilated area. Provide adequate ventilation.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Not required under intended use.
<b>Skin protection</b>	Protected gloves not required under intended use.
<b>Respiratory protection</b>	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Not available.
<b>Color</b>	Cyan
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Not available.
<b>pH</b>	7.8 - 8.6
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not determined
<b>Flash point</b>	200 °F (93.3 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not determined
<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>Vapor density</b>	Not available.
<b>Specific gravity</b>	1 - 1.2
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	> 2 cp
<b>VOC</b>	< 347 g/l

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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Incompatible materials</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.
<b>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

<b>Serious eye damage/eye irritation</b>	Not available.
<b>Further information</b>	Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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## 12. Ecological Information

<b>Ecotoxicity</b>	No information on ecology is available.
<b>Aquatic toxicity</b>	The product contains a substance which may cause long-term adverse effects in the aquatic environment.
<b>Persistence and degradability</b>	Not available.

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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

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

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

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## 15. Regulatory Information

<b>US federal regulations</b>	US TSCA 12(b): Does not contain listed chemicals.
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### CERCLA (Superfund) reportable quantity

None

### Occupational Safety and Health Administration (OSHA)

<b>29 CFR 1910.1200 hazardous chemical</b>	No
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### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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<b>Section 302 extremely hazardous substance</b>	No
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<b>Section 311 hazardous chemical</b>	No
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## State regulations

### 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.

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## 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

25-Oct-2011

### 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

<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



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** 51641Series[M]  
**Version #** 03  
**Revision date** 25-Oct-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.

Causes skin irritation.

### Acute health effects

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

#### Skin contact

*1,5-pentanediol*

Contact with skin may result in irritation.

*2-pyrrolidone*

Contact with skin may result in irritation.

*Alkyldiol ethoxylate*

Contact with skin may result in severe irritation.

*Ethyl alkyldiol*

Contact with skin may result in mild irritation.

*Metal nitrate # 2*

Contact with skin may result in irritation.

*Substituted naphthalenesulfonate salt #10*

May cause sensitization by skin contact.

#### Eye contact

*1,5-pentanediol*

Contact with eyes may result in irritation.

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Alkyldiol ethoxylate*

Contact can cause moderate to severe irritation and possible injury to the eyes.

*Ethyl alkyldiol*

Contact with eyes may result in mild irritation.

*Metal nitrate # 2*

Contact with eyes may result in irritation.

*Substituted naphthalenesulfonate salt #10*

Risk of serious damage to eyes.

**Inhalation***2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Metal nitrate # 2*

Inhalation may result in respiratory irritation.

**Ingestion***2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

*Alkyldiol ethoxylate*

Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.

*Metal nitrate # 2*

Contains nitrate salts, may cause methemoglobinemia.

**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

**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
Water	7732-18-5	60 - 70
1,5-pentanediol	111-29-5	7.5 - 10
2-pyrrolidone	616-45-5	5 - 7.5
Ethyl alkyldiol	Proprietary	5 - 7.5
Metal nitrate # 2	Proprietary	5 - 7.5
Alkyldiol ethoxylate	Proprietary	1 - 2.5
Substituted naphthalenesulfonate salt #10	Proprietary	1 - 2.5

**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. Get medical attention if irritation develops or persists.

**Inhalation**

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

**Ingestion**

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

**5. Fire Fighting Measures****Flammable properties**

None known.

**Extinguishing media****Suitable extinguishing media**

Dry chemical, CO2, water spray or regular foam.

**Unsuitable extinguishing media**

None known.

**Specific methods**

None established.

**Hazardous combustion products**

Refer to section 10.

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## 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.
<b>Methods for containment</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>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.

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## 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.

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## 8. Exposure Controls / Personal Protection

<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Engineering controls</b>	Use in a well ventilated area. Provide adequate ventilation.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Not required under intended use.
<b>Skin protection</b>	Protected gloves not required under intended use.
<b>Respiratory protection</b>	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Not available.
<b>Color</b>	Magenta
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Liquid.
<b>pH</b>	7.8 - 8.6
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not determined
<b>Flash point</b>	200 °F (93.3 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not determined
<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>Vapor density</b>	Not available.
<b>Specific gravity</b>	1 - 1.2
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	2 cp
<b>VOC</b>	< 347 g/l

**Other information** VOC content (less water, less exempt compounds) = <1231 g/L (U.S. requirement, not for emissions)  
VOC data based on formulation (Organic compounds minus solids)

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## 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.  
**Possibility of hazardous reactions** Will not occur.

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## 11. Toxicological Information

**Serious eye damage/eye irritation** Not available.  
**Further information** Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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## 12. Ecological Information

**Ecotoxicity** No information on ecology is available.  
**Aquatic toxicity** No data available for this product.  
**Persistence and degradability** Not available.

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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 <http://www.hp.com/recycle>.

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## 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.

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## 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 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

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## State regulations

### 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.

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## 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

25-Oct-2011

### 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

<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



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** 51641Series[Y]  
**Version #** 03  
**Revision date** 25-Oct-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  
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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.  
  
Causes skin irritation.

### Acute health effects

#### Skin contact

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

*2-pyrrolidone*

Contact with skin may result in irritation.

*Alkyldiol ethoxylate*

Contact with skin may result in severe irritation.

*Ethyl alkyldiol*

Contact with skin may result in mild irritation.

*Metal nitrate # 1*

Contact with skin may result in irritation.

#### Eye contact

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Alkyldiol ethoxylate*

Contact can cause moderate to severe irritation and possible injury to the eyes.

*Ethyl alkyldiol*

Contact with eyes may result in mild irritation.

*Metal nitrate # 1*

Contact with eyes may result in irritation.

#### Inhalation

*2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Metal nitrate # 1*

Inhalation may result in respiratory irritation.

**Ingestion***2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

*Alkyldiol ethoxylate*

Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.

*arylazopyrazolesulfonate salt # 1*

Toxic if swallowed.

*Diethylene glycol*

Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

*Metal nitrate # 1*

Contains nitrate salts, may cause methemoglobinemia.

**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**

Cyan ink:

Substituted phthalocyanine salt: Prolonged ingestion exposure may cause serious damage to health.

Yellow ink:

Arylazopyrazolesulfonate salt: Prolonged ingestion exposure may cause serious damage to health.

**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
Water	7732-18-5	70 - 80
Ethyl alkyldiol	Proprietary	7.5 - 10
Metal nitrate # 1	Proprietary	5 - 7.5
2-pyrrolidone	616-45-5	2.5 - 5
arylazopyrazolesulfonate salt # 1	Proprietary	2.5 - 5
Diethylene glycol	111-46-6	2.5 - 5
Alkyldiol ethoxylate	Proprietary	1 - 2.5

**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. Get medical attention if irritation develops or persists.

**Inhalation**

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

**Ingestion**

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

**5. Fire Fighting Measures****Flammable properties**

None known.

**Extinguishing media****Suitable extinguishing media**

Dry chemical, CO<sub>2</sub>, water spray or regular foam.

<b>Unsuitable extinguishing media</b>	None known.
<b>Specific methods</b>	None established.
<b>Hazardous combustion products</b>	Refer to section 10.

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## 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.
<b>Methods for containment</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>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.

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## 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.

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## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### U.S. - WEEL

Components	Type	Value
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Diethylene glycol (111-46-6)	TWA	10.0000 mg/m3
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**Exposure guidelines** Exposure limits have not been established for this product.

**Engineering controls** Use in a well ventilated area.  
Provide adequate ventilation.

### Personal protective equipment

**Eye / face protection** Not required under intended use.

**Skin protection** Protected gloves not required under intended use.

**Respiratory protection** For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

**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.

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Liquid.
<b>Color</b>	Yellow
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Not available.
<b>pH</b>	7.8 - 8.6
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not determined
<b>Flash point</b>	200 °F (93.3 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not determined
<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>Vapor density</b>	Not available.
<b>Specific gravity</b>	1 - 1.2
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	2 cp
<b>VOC</b>	< 287 g/l
<b>Other information</b>	VOC content (less water, less exempt compounds) = <1320 g/L (U.S. requirement, not for emissions) VOC data based on formulation (Organic compounds minus solids)

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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Incompatible materials</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.
<b>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

<b>Serious eye damage/eye irritation</b>	Not available.
<b>Further information</b>	Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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## 12. Ecological Information

<b>Ecotoxicity</b>	No information on ecology is available.
<b>Aquatic toxicity</b>	No data available for this product.
<b>Persistence and degradability</b>	Not available.

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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

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

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

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## 15. Regulatory Information

<b>US federal regulations</b>	US TSCA 12(b): Does not contain listed chemicals.
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### 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 chemical** No

**State regulations****US - Pennsylvania RTK - Hazardous Substances: Listed substance**

2-pyrrolidone (CAS 616-45-5) Listed.  
Diethylene glycol (CAS 111-46-6) 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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

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**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.

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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</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds