1. Product and Company Identification

Identification of the preparation
51641Series[C]

Product use
Inkjet printing

Version #
04

Revision date
24-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.
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.

Alkylidiol ethoxylate
Contact with skin may result in severe irritation.

Ethyl alkylidiol
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.

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

Ethyl alkylidiol
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.

- **Alkylol ethoxylate**
  Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.

- **Cyan Colorant**
  Harmful if swallowed.

- **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.

**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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,5-pentanediol</td>
<td>111-29-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Alkylol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Cyan Colorant</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Ethyl alkyldiol</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Metal nitrate # 2</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 60</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. 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.

**General advice**

No additional information.

---

### 5. Fire Fighting Measures

**Flammable properties**

None known.

**Extinguishing media**

- **Suitable extinguishing media**
  For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide.
  For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.

- **Unsuitable extinguishing media**
  None known.

**Specific methods**

None established.

**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.

**Methods for cleaning up**
Soak up with inert absorbent material.

**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. 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.

9. Physical & Chemical Properties

**Appearance**
Not available.

**Color**
Cyan

**Odor**
Not available.

**Odor threshold**
Not available.

**Physical state**
Liquid

**Form**
Not available.

**pH**
7.8 - 8.6

**Melting point**
Not available.

**Freezing point**
Not available.

**Boiling point**
Not determined

**Flash point**
200 °F (93.3 °C) Pensky-Martens Closed Cup

**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 - 1.2

**Relative density**
Not available.

**Solubility (water)**
Soluble in water

**Auto-ignition temperature**
Not available.

**Decomposition temperature**
Not available.

**Viscosity**
> 2 cp

**VOC**
< 347 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.

Possibility of hazardous reactions
Will not occur.

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.

12. Ecological Information

Ecotoxicity
No information on ecology is available.

Aquatic toxicity
The product contains a substance which may cause long-term adverse effects in the aquatic environment.

Persistence and degradability
Not available.

13. Disposal Considerations

Disposal instructions
Dispose of in compliance with federal, state, and local regulations.

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
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.

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
24-Oct-2012

This data sheet contains changes from the previous version in section(s):
- Composition / Information on Ingredients: Disclosure Overrides
- 5. Fire Fighting Measures: Suitable extinguishing media
- 9. Physical & Chemical Properties: Other information
- 13. Disposal Considerations: Disposal instructions
- 14. Transport Information: Further 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

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<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act (aka SARA)</td>
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<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<td>National Institute for Occupational Safety and Health</td>
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<td>NTP</td>
<td>National Toxicology Program</td>
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</tr>
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<td>STEL</td>
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</tr>
<tr>
<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>
1. Product and Company Identification

Identification of the preparation: 51641Series[M]

Version #: 04

Revision date: 24-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.

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.

Magenta Colorant
May cause sensitization by skin contact.

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.

Magenta Colorant
Risk of serious damage to eyes.

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.

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

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<td>&lt; 10</td>
</tr>
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<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Alkyldiol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Ethyl alkyldiol</td>
<td>Proprietary</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Magenta Colorant</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Metal nitrate # 2</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 60</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. 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.

General advice
No additional information

5. Fire Fighting Measures

Flammable properties
None known.

Extinguishing media

Suitable extinguishing media
For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide.
For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.

Unsuitable extinguishing media
None known.

Specific methods
None established.

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.

Methods for cleaning up
Soak up with inert absorbent material.

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.
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.

9. Physical & Chemical Properties

Appearance
Not available.

Color
Magenta

Odor
Not available.

Odor threshold
Not available.

Physical state
Liquid

Form
Liquid.

pH
7.8 - 8.6

Melting point
Not available.

Freezing point
Not available.

Boiling point
Not determined

Flash point
200 °F (93.3 °C) Pensky-Martens Closed Cup

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 - 1.2

Relative density
Not available.

Solubility (water)
Soluble in water

Auto-ignition temperature
Not available.

 Decomposition temperature
Not available.

Viscosity
2 cp

VOC
< 347 g/l
10. Chemical Stability & Reactivity Information

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Stable under recommended storage conditions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible materials</td>
<td>Incompatible with strong bases and oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

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. |

12. Ecological Information

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

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. |

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
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
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)

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
24-Oct-2012

This data sheet contains changes from the previous version in section(s):
- Composition / Information on Ingredients: Disclosure Overrides
- 5. Fire Fighting Measures: Suitable extinguishing media
- 9. Physical & Chemical Properties: Other information
- 14. Transport Information: Further 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
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<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COC</td>
<td>Cleveland Open Cup</td>
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<td>DOT</td>
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<td>Toxicity Characteristics Leaching Procedure</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>
1. Product and Company Identification

Identification of the preparation

Version # 04

Revision date 24-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.

Causes skin irritation.

Acute health effects

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

Skin contact

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.

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.

Yellow Colorant
Toxic 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
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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkyldiol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Ethyl alkyldiol</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Metal nitrate # 1</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>Yellow Colorant</td>
<td>Proprietary</td>
<td>&lt; 5</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. 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.

General advice
No additional information

5. Fire Fighting Measures

Flammable properties
None known.
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.

Methods for cleaning up
Soak up with inert absorbent material.

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

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol (111-46-6)</td>
<td>TWA</td>
<td>10.0000 mg/m3</td>
</tr>
</tbody>
</table>

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.

9. Physical & Chemical Properties

- **Appearance**: Liquid.
- **Color**: Yellow
- **Odor**: Not available.
- **Odor threshold**: Not available.
- **Physical state**: Liquid
- **Form**: Not available.
- **pH**: 7.8 - 8.6
- **Melting point**: Not available.
- **Freezing point**: Not available.
- **Boiling point**: Not determined
- **Flash point**: 200 °F (93.3 °C) Pensky-Martens Closed Cup
- **Evaporation rate**: Not determined
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.

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.

12. Ecological Information

**Ecotoxicity**
No information on ecology is available.

**Aquatic toxicity**
No data available for this product.

**Persistence and degradability**
Not available.

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.

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.
Diethylene glycol (CAS 111-46-6) Listed.

US. Rhode Island RTK
Diethylene glycol (CAS 111-46-6)

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
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)

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
24-Oct-2012
This data sheet contains changes from the previous version in section(s):

Composition / Information on Ingredients: Disclosure Overrides
5. Fire Fighting Measures: Suitable extinguishing media
9. Physical & Chemical Properties: Other information
14. Transport Information: Further information
15. Regulatory Information: Other information

Manufacturer information
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(Direct) 1-503-494-7199
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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