1. Chemical Product and Company Identification

Material name: C6114A
Use of the preparation: Inkjet printing
Version #: 04
Revision date: 19-Mar-2008
CAS #: Mixture
Manufacturer information: Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, OR 97330-4239 US

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199

General information telephone number
HP Customer Care Line 1-800-474-6836
(Toll-free) 1-800-474-6836
(Direct) 1-208-323-2551
Date prepared: Mar 18, 2008
MSDS number: 264185

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:
1,5-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 # 1
Contact with skin may result in irritation.

Metal nitrate # 2
Contact with skin may result in irritation.

Substituted naphthalenesulfonate salt #10
May cause sensitization by skin contact.

Substituted triphenylmethane salt #1
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 # 1  
Contact with eyes may result in irritation.

Metal nitrate # 2  
Contact with eyes may result in irritation.

Substituted napthalenesulfonate salt #10  
Risk of serious damage to eyes.

Substituted triphenylmethane salt #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.

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.

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.

Metal nitrate # 2  
Contains nitrate salts, may cause methemoglobinemia.

Substituted phthalocyanine salt # 2  
Harmful if swallowed.

**Potential health effects**

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.
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>Component/Substance</th>
<th>CAS Number</th>
<th>% By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cyan ink</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>1,5-pentanediol</td>
<td>111-29-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>2-pyrolidone</td>
<td>616-45-5</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Ethyl alkyl diol</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Metal nitrate # 2</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Substituted phthalocyanine salt # 2</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkyl diol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Substituted triphenylmethane salt # 1</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td><strong>Magenta ink</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>1,5-pentanediol</td>
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</tr>
<tr>
<td>Metal nitrate # 2</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Substituted naphthalenesulfonate salt # 10</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkyl diol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td><strong>Yellow ink</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>Ethyl alkyl diol</td>
<td>Proprietary</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Metal nitrate # 1</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
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<tr>
<td>2-pyrolidone</td>
<td>616-45-5</td>
<td>&lt; 5</td>
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<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
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<tr>
<td>arylazopyrazolesulfonate salt # 1</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkyl diol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 5</td>
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</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.

### 5. Fire Fighting Measures

**Flash point and method**
> 200 °F (> 93.3 °C); Pensky-Martens Closed Cup
Hazardous combustion products
Refer to section 10.

Flammable properties
None known.

Extinguishing media
Suitable extinguishing media
Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media
None known.

Unusual fire and explosion hazard
None known.

Special firefighting procedures
None established.

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.

Personal protective equipment

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

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.

9. Physical & Chemical Properties

Color
Cyan, magenta, yellow

Odor threshold
Not available

Physical state
Liquid.

pH
6.1 - 8.4

Melting point
Not available

Freezing point
Not available
**Boiling point**  Not determined  
**Flash point**  
$> 200 \, ^\circ F (> 93.3 \, ^\circ C)$; Pensky-Martens Closed Cup  
**Evaporation rate**  Not determined  
**Flammability**  Not available.  
**Flammability limits in air, upper, % by volume**  Not available  
**Flammability limits in air, lower, % by volume**  Not determined  
**Vapor pressure**  Not determined  
**Vapor density**  $> 1$ (air = 1.0)  
**Specific gravity**  1 - 1.2  
**Relative density**  Not available  
**Solubility in water**  Soluble in water  
**Partition coefficient (n-octanol/water)**  Not available  
**Auto-ignition temperature**  Not available  
**Decomposition temperature**  Not available  
**VOC**  $< 3 \%$  
**Viscosity**  $> 2 \, cp$  

### 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

**Oral toxicity**

- **Magenta ink**
  Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
- **Yellow ink**
  LD50/oral/rat $> 2500 \, mg/kg$ (OECD 423)
  Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.

**Eye irritation**

- **Magenta ink**
  Mild irritant in rabbit (OECD 405)

**Sensitization**

- **Magenta ink**
  Non-sensitizer in guinea pig (OECD 406) (OECD 406)
12. Ecological Information

Aquatic toxicity

*Cyan ink*
LC50/96h/Fathead minnows =< 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 67%
Static acute toxicity (trout), survival (10 mg/L) = 100%

*Magenta ink*
LC50/96h/Fathead minnows =< 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 100%
Static acute toxicity (trout), survival (10 mg/L) = 100%

*Yellow ink*
LC50/96h/Fathead minnows =< 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 23%
Static acute toxicity (trout), survival (10 mg/L) = 93%

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. Transportation Information

Department of Transportation (DOT) Requirements
Not regulated as hazardous goods.

IATA

Proper shipping name
Not applicable

Hazard class
Not applicable

UN number
None

Packing group
N/A

Packaging exceptions
None

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity
None

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
International regulations

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.

State regulations

U.S. - Pennsylvania - RTK (Right to Know) List
Metal nitrate # 2 Proprietary Present

U.S. - New Jersey - Right to Know Hazardous Substance List
Metal nitrate # 2 Proprietary sn 1143

16. Other Information

HMIS® ratings
Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 1
Instability: 0

Issue date
Mar 18 2008  5:28PM

Revision
4

Replaces sheet dated
Mar 13 2008  7:22PM

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.

MSDS sections updated
8. Exposure Controls/Personal Protection: Respiratory
### Explanation of abbreviations

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