1. Chemical Product and Company Identification

Material name  C8831A
Use of the preparation  Inkjet printing
Version #  03
Revision date  28-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 28, 2008

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.
Alkyldicarboxylic acid  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.

Eye contact

1,5-pentanediol  Contact with eyes may result in irritation.
2-pyrrolidone  Contact with eyes may result in irritation.
Alkyldicarboxylic acid  Contact can cause moderate to severe irritation and possible injury to the eyes.
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.
MATERIAL SAFETY DATA SHEET

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Alkyldicarboxylic acid
Inhalation may result in respiratory irritation.

Ingestion

2-pyrrolidone
Ingestion may result in nausea, vomiting and diarrhea.

Alkyldicarboxylic acid
Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Alkyldiol ethoxylate
Ingestion may cause irritation of mouth, throat, 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

<table>
<thead>
<tr>
<th>Component/substance</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<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>Ethyl alkylol</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Alkyldicarboxylic acid</td>
<td>Proprietary</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Substituted napthalenesulfonate salt #7</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Alkyldiol ethoxylate</td>
<td>Proprietary</td>
<td>&lt; 2.5</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. If irritation persists get medical attention.

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

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

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**
  CO2, water, dry chemical, or foam
- **Unsuitable extinguishing media**
  None known.

### Unusual fire and explosion hazard
None known.

### Special firefighting procedures
None established.

### 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Personal precautions</th>
<th>Wear appropriate personal protective equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental precautions</td>
<td>Do not let product enter drains. Do not flush into surface water or sanitary sewer system.</td>
</tr>
<tr>
<td>Methods for containment</td>
<td>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.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Soak up with inert absorbent material.</td>
</tr>
<tr>
<td>Other information</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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

<p>| Color | Yellow |
| Odor threshold | Not available |
| Physical state | Liquid. |
| pH | 3.75 - 4.25 |
| Melting point | Not available |
| Freezing point | Not available |</p>
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200 °F (&gt; 93.3 °C); Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, upper, % by volume</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>&gt; 1 (air = 1.0)</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1 - 1.2</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC</td>
<td>&lt; 3 %</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&gt; 2 cp</td>
</tr>
</tbody>
</table>

### 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

Not available

### 12. Ecological Information

**Aquatic toxicity**
LC50/96h/Fathead minnows =< 400 mg/L  
Static acute toxicity (trout), survival (100 mg/L) = 80%  
Static acute toxicity (trout), survival (10 mg/L) = 100%

**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.

**Material name** C8831A  
**Creation date** Apr 30, 2003  
**Version number** 4
15. Regulatory Information

US federal regulations
US EPA 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 - Yes
  - Pressure Hazard - No
  - Reactivity Hazard - No
- Section 302 extremely hazardous substance
  - No
- Section 311 hazardous chemical
  - Yes

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.

16. Other Information

HMIS® ratings
- Health: 1
- Flammability: 2
- Physical hazard: 0

NFPA ratings
- Health: 1
- Flammability: 2
- Instability: 0

Issue date
Mar 28 2008 8:25AM

Revision
3

Replaces sheet dated
Jan 10 2006 1:39AM

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
- 3. Hazards Identification: Routes of exposure
- 8. Exposure Controls/Personal Protection: Respiratory
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