# Material Safety Data Sheet

## 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Material name</th>
<th>C4913A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the preparation</td>
<td>Inkjet printing</td>
</tr>
<tr>
<td>Version #</td>
<td>05</td>
</tr>
<tr>
<td>Revision date</td>
<td>02-16-2009</td>
</tr>
<tr>
<td>CAS #</td>
<td>Mixture</td>
</tr>
<tr>
<td>Company identification</td>
<td>Hewlett-Packard Company</td>
</tr>
</tbody>
</table>

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: hpcustomerinquiries@hp.com  
Date prepared: Feb 16, 2009

## 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.

- **Tetraethylene glycol**  
  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.

- **Alkyldicarboxylic acid**  
  Contact can cause moderate to severe irritation and possible injury to the eyes.

- **Tetraethylene glycol**  
  Contact with eyes may cause irritation.

#### Inhalation

- **2-pyrrolidone**  
  Inhalation may result in respiratory irritation.

- **Alkyldicarboxylic acid**  
  Inhalation may result in respiratory irritation.

- **Tetraethylene glycol**  
  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.
**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>&lt; 80</td>
</tr>
<tr>
<td>1,5-pentanediol</td>
<td>111-29-5</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Alkyldicarboxylic acid</td>
<td>Proprietary</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Substituted naphthalenesulfonate salt #7</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Tetraethylene glycol</td>
<td>112-60-7</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. 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.
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.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color
Yellow

Odor threshold
Not available.

Physical state
Liquid.

pH
3.8 - 4.2

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
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 (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
Not available.

12. Ecological Information
Aquatic toxicity
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%

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
IATA
Proper shipping name
Not applicable
Hazard class
Not applicable
UN number
None
Packing group
N/A
Packaging exceptions
None
Packaging non bulk
None
Labels required
None

General
Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.

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. 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
US - Pennsylvania RTK - Hazardous Substances: Listed substance
2-pyrrolidone (616-45-5) Listed.
16. Other Information

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

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

Issue date
Feb 16 2009  4:43AM

Revision
5

Replaces sheet dated
Feb 5 2009  4:42PM

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.

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

Manufacturer information
Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, OR 97330-4239 US
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209