



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Identification of the substance/preparation** C4838A

**Use of the preparation** Inkjet printing

**Revision date** 02-16-2009

**CAS #** Mixture

**Company identification** Hewlett-Packard, Ltd.  
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Bracknell, Berkshire, RG12 1HN  
Telephone 1 344 36-0000

Hewlett-Packard health effects line  
(Toll-free within the US) 1-800-457-4209  
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(Direct) 1-208-323-2551  
Email: hpcustomerinquiries@hp.com  
Poison Information Center 0207771 5307

## 2. HAZARDS IDENTIFICATION

### 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 diarrhoea.



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## 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.

### Physical hazards

Not classified as a physical hazard.

### Health hazards

Not classified as a health hazard.

### Environmental hazards

Not classified as an environmental hazard.

### Other information

This yellow ink is not classified according to EU Directive 1999/45/EC.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight	EU number	EU classification
Water	7732-18-5	< 80	231-791-2	
1,5-pentanediol	111-29-5	< 20	203-854-4	
2-pyrrolidone	616-45-5	< 10	210-483-1	Xi, R36/38
Alkyldicarboxylic acid	Proprietary	< 10	Proprietary	R36/37/38
Substituted naphthalenesulfonate salt #7	Proprietary	< 2.5	Proprietary	
Tetraethylene glycol	112-60-7	< 2.5	203-989-9	Xi, R36/37/38

### Composition comments

This ink supply contains an aqueous ink formulation.

This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended.

For the full text of the R phrases mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### Inhalation

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

### Skin contact

Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

### 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.

### Ingestion

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

## 5. FIRE-FIGHTING MEASURES

### Flash point and method

> 93.3 °C (> 200 °F); Pinsky-Martens Closed Cup

### Suitable extinguishing media

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

### Extinguishing media which must not be used for safety reasons

None known.

### Unusual fire & explosion hazards

None known.

### Hazardous combustion products

Refer to section 10.

### Specific methods

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.

### Containment procedures

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.



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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

Occupational exposure limits

Denmark

Components

Type

Value

Tetraethylene glycol (112-60-7)

TLV

1000 mg/m<sup>3</sup>

Germany

Components

Type

Value

Form

Tetraethylene glycol (112-60-7)

AGW

1000 mg/m<sup>3</sup>

Inhalable fraction.

TWA

1000 mg/m<sup>3</sup>

Netherlands

Components

Type

Value

Tetraethylene glycol (112-60-7)

Ceiling

1000 mg/m<sup>3</sup>

TWA (MAC)

1000 mg/m<sup>3</sup>

Switzerland

Components

Type

Value

Tetraethylene glycol (112-60-7)

TWA

1000 ppm

1000 mg/m<sup>3</sup>

Additional exposure data

Exposure limits have not been established for this product.

Personal protective equipment

General

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

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Not available.

Physical state

Liquid.

Form

Not available.

Color

Yellow

Odor

Not available.

Odour threshold

Not available.

pH

3.8 - 4.2

Boiling point

Not determined

Flash point

> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup

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

Material name C4838A

Creation date 30-Apr-2003

Version number 6

SDS UK

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Relative density	Not available.
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Viscosity	> 2 cp
Vapor density	> 1 (air = 1.0)
Evaporation rate	Not determined
Melting point	Not available.
Freezing point	Not available.
Auto-ignition temperature	Not available.
Specific gravity	1 - 1.2
VOC	< 3 %

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## 10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Materials to avoid	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.
Hazardous polymerization	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

Further information	This ink formulation has not been tested for toxicological effects. Refer to Section 3 for potential health effects and Section 4 for first aide measures.
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## 12. ECOLOGICAL INFORMATION

Aquatic toxicity	LC50/96h/Fathead minnows =/ $\leq$ 400 mg/L Static acute toxicity (trout), survival (100 mg/L) = 100% Static acute toxicity (trout), survival (10 mg/L) = 100%
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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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
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## 14. TRANSPORT INFORMATION

### ADR

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### 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.



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## 15. REGULATORY INFORMATION

<b>International regulations</b>	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. 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.
<b>Labeling</b>	
<b>Contains</b>	1,5-pentanediol, 2-pyrrolidone, Alkyldicarboxylic acid, Substituted naphthalenesulfonate salt #7, Tetraethylene glycol, Water
<b>EC Label</b>	This product does not require a label according to EU Directive 1999/45/EC.

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## 16. OTHER INFORMATION

<b>Manufacturer information</b>	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
<b>List of relevant R phrases</b>	R36/37/38 Irritating to eyes, respiratory system and skin. R36/38 Irritating to eyes and skin.
<b>Other information</b>	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
<b>Disclaimer</b>	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.
<b>Issue date</b>	02-16-2009



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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