



# SAFETY DATA SHEET

## 1. Identification of the substance/preparation and of the company/undertaking

**Identification of the preparation** C1823 Series

**Selectability number** 23

**Use of the preparation** Inkjet printing

**Company identification** Hewlett-Packard, Ltd.  
Cain Road, Amen Corner  
Bracknell, Berkshire, RG12 1HN

**Emergency telephone number**

**National Poisons Information** 020 7771 5307

**Hewlett-Packard health effects line**

**(Toll-free within the US)** 1-800-457-4209

**(Direct)** 1-503-494-7199

**General information telephone number** 1344 36-0000

**HP Customer Care Line**

**(Toll-free within the US)** 1-800-474-6836

**(Direct)** 1-208-323-2551

**Revision date** 12-Dec-2004

**SDS number** 16676

## 2. Composition/information on ingredients

Component/substance	CAS number	% by weight	EU number	EU classification
<b>Cyan ink</b>				
Water	7732-18-5	< 70	231-791-2	
1,5-pentanediol	111-29-5	< 10	203-854-4	
Ethyl alkyldiol	Proprietary	< 7.5	Proprietary	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	Xi; R36/38
Metal nitrate #2	Proprietary	< 7.5	Proprietary	Xi, O; R36/37/38, 8
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn; R21/22, 38, 41
Substituted phthalocyanine salt #2	Proprietary	< 2.5	Proprietary	Xn, N; R22, 48/22, 51/53
<b>Magenta ink</b>				
Water	7732-18-5	< 70	231-791-2	
1,5-pentanediol	111-29-5	< 10	203-854-4	
Ethyl alkyldiol	Proprietary	< 7.5	Proprietary	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	Xi; R36/38
Metal nitrate #2	Proprietary	< 7.5	Proprietary	Xi, O; R36/37/38, 8
Substituted naphthalenesulfonate salt #10	Proprietary	< 2.5	Proprietary	Xi; R41, 43, 52/53
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn; R21/22, 38, 41



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Component/substance	CAS number	% by weight	EU number	EU classification
<b>Yellow ink</b>				
Water	7732-18-5	< 80	231-791-2	
Ethyl alkyldiol	Proprietary	< 10	Proprietary	
Metal nitrate #1	Proprietary	< 7.5	Proprietary	Xi, O; R36/38, 8
Diethylene glycol	111-46-6	< 5	203-872-2	Xn; R22
2-pyrrolidone	616-45-5	< 5	210-483-1	Xi; R36/38
Arylazopyrazolesulfonate salt #1	Proprietary	< 5	Proprietary	T; R25, 52/53
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn; R21/22, 38, 41

**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.

**3. 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.

*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.

*Metal nitrate #2*

Contact with skin may result in irritation.

*Substituted naphthalenesulfonate salt #10*

May cause sensitisation by skin contact.



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## 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 naphthalenesulfonate salt #10*

Risk of serious damage to eyes.

## 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.



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## 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

### 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.

## Other information

This Cyan ink is classified for environmental effects according to EU Directive 1999/45/EC with R52-53. The magenta and yellow inks are not classified according to EU Directive 1999/45/EC.



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## 4. First aid measures

### First aid procedures

<b>Eye</b>	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.
<b>Skin</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, get medical attention.
<b>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.

## 5. Fire-fighting measures

<b>Flash point and method</b>	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
<b>Hazardous combustion products</b>	Refer to section 10.
<b>Extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Unusual fire and explosion hazard</b>	None known.
<b>Special firefighting procedures</b>	None established.

## 6. Accidental release measures

<b>Personal precautions</b>	Wear appropriate personal protective equipment.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
<b>Procedures if material is released or spilled</b>	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

<b>Handling</b>	Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep out of the reach of children. Keep away from excessive heat or cold.

## 8. Exposure controls / personal protection

<b>Exposure limit values</b>	Exposure limits have not been established for this product.
United Kingdom - Occupational Exposure Standards - TWAs	
Diethylene glycol	111-46-6                      23 ppm TWA; 101 mg/m <sup>3</sup> TWA
<b>Personal protective equipment</b>	
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Exposure guidelines</b>	Use in a well ventilated area.



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## 9. Physical and chemical properties

pH	7.8 - 8.6
Vapour pressure	Not determined
Boiling point	Not determined
Solubility	Soluble in water
Specific gravity	1 - 1.2
VOC content	< 3 %
Flash point	> 93.3 °C (> 200 °F)
Viscosity	> 2 cp
Vapour density	> 1 (Air = 1.0)
Evaporation rate	Not determined
Flammability	Not determined
Oxidising properties	Not determined
Color	Cyan, magenta, yellow

## 10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Hazardous polymerisation	Will not occur.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Incompatibility	Incompatible with strong bases and oxidising agents.

## 11. Toxicological information

Complete toxicity data are not available for this specific formulation .  
Refer to Section 3 for potential health effects and Section 4 for first aid measures.

### Eye irritation

*Magenta ink*  
Mild irritant in rabbit (OECD 405)  
Not classified for eye irritation according to EU Directive 67/548/EEC and 1999/45/EC.

### Sensitisation

*Magenta ink*  
Non - sensitizer in guinea pig (OECD 406)  
Not classified for skin sensitisation according to EU Directive 67/548/EEC and 1999/45/EC.

### Oral toxicity

*Yellow ink*  
LD50/oral/rat >2500mg/kg (OECD 401)  
Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.



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## 12. Ecological information

### Aquatic toxicity

#### *Cyan ink*

Static acute toxicity (trout), survival (100 mg/L) = 100%

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) = 23%

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) = 20%

Static acute toxicity (trout), survival (10 mg/L) = 100%

## 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

### General

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

### IATA

**Proper shipping name** Not applicable

**Hazard class** Not applicable

**Packaging exceptions** None

**Identification number (UN)** None

**Packing group** N/A

## 15. Regulatory information

### 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.

### EU label

Contains Reactive Red dye. May produce an allergic reaction.

### EU classification and labeling

**Risk phrases** R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases** S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

## 16. Other information



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**Manufacturer information** Hewlett-Packard Company  
1000 NE Circle Boulevard  
Corvallis, OR 97330-4239 US

**Ingredient risk phrase definition(s)**

R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R25	Toxic if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R8	Contact with combustible material may cause fire.

**Other information** This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.

**Issue date** 12-Dec-2004

**Revision** 2

**Replaces sheet dated** 06-Oct-2004

**Preparation and revision information**

Chemical Product and Company Identification: Alternate Trade Names - SKU Numbers

Composition / Information on Ingredients: Ingredient Extensions

Physical & Chemical Properties: Physical & Chemical Properties

**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.



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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