



SAFETY DATA SHEET

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

Identification of the preparation C4893A

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 13-Dec-2004

SDS number 19301

2. Composition/information on ingredients

Component/substance	CAS number	% by weight	EU number	EU classification
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
Alkyldicarboxylic acid	Proprietary	< 7.5	Proprietary	Xi, R36/37/38
Substituted naphthalenesulfonate salt #7	Proprietary	< 2.5	Proprietary	
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xi, 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.



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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.

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 diarrhoea.

Alkyldiol ethoxylate

Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.



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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.

Other information

This yellow ink is classified for environmental effects according to EU Directive 1999/45/EC with R52/53.

4. First aid measures

First aid procedures

Eye

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

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

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

Hazardous combustion products

Refer to section 10.

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.

Procedures if material is released or spilled

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.



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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 limit values	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.
Exposure guidelines	Use in a well ventilated area.

9. Physical and chemical properties

pH	3.75 - 4.25
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	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

This ink formulation has not been tested for toxicological effects.
Refer to Section 3 for potential health effects and Section 4 for first aid measures.

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%
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13. Disposal considerations

Disposal instructions Dispose of in compliance with federal, state, and local regulations.

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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

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

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.
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.

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

Issue date 13-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



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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