



# SAFETY DATA SHEET

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

<b>Identification of the substance/preparation</b>	C4810A
<b>Use of the preparation</b>	Inkjet printing
<b>Revision Date</b>	30-Apr-2008
<b>CAS #</b>	Mixture
<b>Company identification</b>	Hewlett-Packard, Ltd. Cain Road, Amen Corner Bracknell, Berkshire, RG12 1HN
<b>Emergency telephone number</b>	
<b>Poison Information Center</b>	0207771 5307
<b>Hewlett-Packard health effects line</b>	
<b>(Toll-free within the US)</b>	1-800-457-4209
<b>(Direct)</b>	1-503-494-7199
<b>General information telephone number</b>	
	1 344 36-0000
<b>(Toll-free within the US)</b>	1-800-474-6836
<b>(Direct)</b>	1-208-323-2551
<b>Email</b>	hpcustomerinquiries@hp.com

## 2. HAZARDS IDENTIFICATION

<b>Acute health effects</b>	Any potential hazards are presumed to be due to exposure to the components.
<b>Skin contact</b>	<i>2-pyrrolidone</i> Contact with skin may result in irritation.
<b>Eye contact</b>	<i>2-pyrrolidone</i> Contact with eyes may result in irritation.
<b>Inhalation</b>	<i>2-pyrrolidone</i> Inhalation may result in respiratory irritation.
<b>Ingestion</b>	<i>2-pyrrolidone</i> Ingestion may result in nausea, vomiting and diarrhea.
<b>Potential health effects</b>	
<b>Routes of exposure</b>	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.
<b>Chronic health effects</b>	Carbon Black: Chronic inhalation studies performed with fine dust particles resulted in lung tumors in animals. The IARC classification was based upon these results. IARC also concluded "there is inadequate evidence in humans for the carcinogenicity of carbon black." Inhalation of fine dust particles is not expected to occur during normal conditions of use of this ink.
<b>Carcinogenicity</b>	Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.



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<b>Physical hazards</b>	Not classified as a physical hazard.
<b>Health hazards</b>	Not classified as a health hazard.
<b>Environmental hazards</b>	Not classified as an environmental hazard.
<b>Other information</b>	This black 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	> 70	231-791-2	
2-pyrrolidone	616-45-5	< 10	210-483-1	R36/38
Carbon black	1333-86-4	< 5	435-640-3	

**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

<b>Inhalation</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<b>Eye contact</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>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>Suitable extinguishing media</b>	CO <sub>2</sub> , water, dry chemical, or foam
<b>Extinguishing media which must not be used for safety reasons</b>	None known.
<b>Unusual fire &amp; explosion hazards</b>	None known.
<b>Hazardous combustion products</b>	Refer to section 10.
<b>Specific methods</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>Containment procedures</b>	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.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

### 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.



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limits

#### Belgium

Components	CAS #	TWA	STEL
Carbon black	1333-86-4	3.6 mg/m <sup>3</sup>	Not established

#### Denmark

Components	CAS #	TWA	Ceiling
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	Not established

#### France

Components	CAS #	TWA (VME)	STEL (VLE)
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	Not established

#### Netherlands

Components	CAS #	TWA (MAC)	STEL	Ceiling
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	Not established	Not established

#### Spain

Components	CAS #	TWA (VLA-ED)	STEL (VLA-EC)
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	Not established

#### Sweden

Components	CAS #	TLV (LLV)	STEL (STV)	Ceiling (CLV)
Carbon black	1333-86-4	3 mg/m <sup>3</sup>	Not established	Not established

#### United Kingdom

Components	CAS #	TWA	STEL
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	7 mg/m <sup>3</sup>

**Additional exposure data** Exposure limits have not been established for this product.

United Kingdom - Workplace Exposure Limits (WELs) - TWAs  
Carbon black 1333-86-4 3.5 mg/m<sup>3</sup> TWA

United Kingdom - Workplace Exposure Limits (WELs) - STELS  
Carbon black 1333-86-4 7 mg/m<sup>3</sup> STEL

**Engineering measures** Provide adequate ventilation.

### Personal protective equipment

**Skin and body protection** Protected gloves not required under intended use.

**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.



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<b>Form</b>	Not available
<b>Colour</b>	Black
<b>Odour</b>	Not available
<b>Odour threshold</b>	Not available
<b>pH</b>	7.8 - 8.8
<b>Boiling point</b>	Not determined
<b>Flash point</b>	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
<b>Flammability</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not determined
<b>Vapour pressure</b>	Not determined
<b>Relative density</b>	Not available
<b>Solubility in water</b>	Soluble in water
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Viscosity</b>	> 2 cp
<b>Vapour density</b>	> 1 (Air = 1.0)
<b>Evaporation rate</b>	Not determined
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Specific gravity</b>	1 - 1.2
<b>VOC</b>	< 3 %

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## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	Not available
<b>Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Hazardous polymerisation</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

### Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s		
Carbon black	1333-86-4	Oral LD50 Rat: >15400 mg/kg; Dermal LD50 Rabbit: >3 g/kg
Toxicology Data - Selected LD50s and LC50s		
Water	7732-18-5	Oral LD50 Rat: >90 mL/kg

### Carcinogenicity

IARC - Group 2B (Possibly Carcinogenic to Humans)		
Carbon black	1333-86-4	Monograph 93 posted, Monograph 65 [1996]



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## 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 aid measures.

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## 12. ECOLOGICAL INFORMATION

**Aquatic toxicity** LC50/96h/Fathead minnows => 750 mg/L

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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 <http://www.hp.com/recycle>.

**Waste from residues / unused products** Not available

**Contaminated packaging** Not available

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## 14. TRANSPORT INFORMATION

### ADR

Not regulated as hazardous goods.

### IMDG

Not regulated as hazardous goods.

### IATA

**Proper shipping name** not applicable

**Hazard class** not applicable

**UN number** None.

**Packing group** N/A

**Packaging exceptions** None.

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

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## 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. 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.

### Labelling

**Contains** 2-pyrrolidone, Carbon black, Water

**EC Label** This product does not require a label according to EU Directive 1999/45/EC.

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## 16. OTHER INFORMATION

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



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## List of relevant R phrases

United Kingdom - Workplace Exposure Limits (WELs) - TWAs  
Carbon black 1333-86-4 3.5 mg/m3 TWA

United Kingdom - Workplace Exposure Limits (WELs) - STELs  
Carbon black 1333-86-4 7 mg/m3 STEL

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

**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.

**Issue date** 30-Apr-2008

## 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