



SAFETY DATA SHEET

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

Identification of the substance/preparation	C4820A
Use of the preparation	Inkjet printing
Revision Date	30-Apr-2008
CAS #	Mixture
Company identification	Hewlett-Packard, Ltd. Cain Road, Amen Corner Bracknell, Berkshire, RG12 1HN
Emergency telephone number	
Poison Information Center	0207771 5307
Hewlett-Packard health effects line	
(Toll-free within the US)	1-800-457-4209
(Direct)	1-503-494-7199
General information telephone number	
	1 344 36-0000
(Toll-free within the US)	1-800-474-6836
(Direct)	1-208-323-2551
Email	hpcustomerinquiries@hp.com

2. HAZARDS IDENTIFICATION

Acute health effects	Any potential hazards are presumed to be due to exposure to the components.
Skin contact	<i>2-pyrrolidone</i> Contact with skin may result in irritation.
Eye contact	<i>2-pyrrolidone</i> Contact with eyes may result in irritation.
Inhalation	<i>2-pyrrolidone</i> Inhalation may result in respiratory irritation.
Ingestion	<i>2-pyrrolidone</i> Ingestion may result in 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	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.
Carcinogenicity	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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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 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

Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Skin contact	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
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); Pensky-Martens Closed Cup
Suitable extinguishing media	CO ₂ , water, dry chemical, or 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.
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.



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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 ³	Not established

Denmark

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

France

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

Netherlands

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

Spain

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

Sweden

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

United Kingdom

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

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/m³ TWA

United Kingdom - Workplace Exposure Limits (WELs) - STELS
Carbon black 1333-86-4 7 mg/m³ 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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Form	Not available
Colour	Black
Odour	Not available
Odour threshold	Not available
pH	7.8 - 8.8
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
Vapour pressure	Not determined
Relative density	Not available
Solubility in water	Soluble in water
Partition coefficient (n-octanol/water)	Not available
Viscosity	> 2 cp
Vapour 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 %

10. STABILITY AND REACTIVITY

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

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.

12. ECOLOGICAL INFORMATION

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

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

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.

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.

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

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