



CHEMICAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material name C4810A
Product use Inkjet printing
Company identification China Hewlett-Packard Bldg.
112 Jianguo Rd., Chaoyang District
Beijing, 100022, China
Telephone (+86) 10 6564-3888

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomerinquiries@hp.com

CSDS number
Revision date 22-May-2009
CAS # Mixture

2. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component/substance	CAS number	% by weight
Water	7732-18-5	< 80
2-pyrrolidone	616-45-5	< 10
Carbon black	1333-86-4	< 5

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

Classification (EU) Not available.

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
2-pyrrolidone
Not available.
Carbon black
Not available.
Water
Not available.

Health hazards Not available.
Environmental hazards Not available.
Physical hazards Not available.
Acute health effects Any potential hazards are presumed to be due to exposure to the components.



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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

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.

Other information This black ink is not classified according to EU Directive 1999/45/EC.

4. FIRST AID MEASURES

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.
Inhalation	Move 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

General fire hazards	Not available.
Specific hazards	Not available.
Fire fighting equipment/instructions	Not available.
Suitable extinguishing media	CO2, water, dry chemical, or foam
Extinguishing media which must not be used for safety reasons	None known.
Flash point and method	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
Unusual fire & explosion hazards	None known.
Hazardous combustion products	Refer to section 10.
Specific methods	None established.

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Not available.
Personal precautions	Wear appropriate personal protective equipment.
Methods for cleaning up	Soak up with inert absorbent material.
Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
Spill or leak procedure	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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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.

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

China

Components

Carbon black (1333-86-4)

Type

TWA

Value

4 mg/m³

Form

Total dust.

ACGIH

Components

Carbon black (1333-86-4)

Type

TWA

Value

3.5 mg/m³

Engineering measures

Provide adequate ventilation.

Personal protective equipment

Respiratory protection

Not available.

Eye protection

Not available.

Skin and body protection

Protected gloves not required under intended use.

Hand protection

Not available.

General

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

Additional exposure data

Exposure limits have not been established for this product.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state

Liquid.

Color

Black

Odor

pH

7.8 - 8.8

Melting point

Not available.

Boiling point

Not determined

Relative density

Not available.

Partition coefficient (n-octanol/water)

Not available.

Flash point

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

Auto-ignition temperature

Not available.

Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air, lower, % by volume

Not determined

Solubility (water)

Soluble in water

VOC

< 3 %

Viscosity

> 2 cp

Evaporation rate

Not determined



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Flammability	Not determined
Vapor pressure	Not determined
Vapor density	> 1 (air = 1.0)
Specific gravity	1 - 1.2

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Materials to avoid	Not available.
Conditions to avoid	Not available.
Hazardous polymerization	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.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Not available.
Eye contact	Not available.
Skin contact	Not available.

Carcinogenicity

IARC Monographs on Occupational Exposures to Chemical Agents: Evidence of carcinogenicity in humans

Carbon black (1333-86-4) Inadequate data.

US ACGIH Threshold Limit Values: A4 carcinogen

Carbon black (1333-86-4) Group A4 Not classifiable as a human carcinogen.

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Aquatic toxicity	LC50/96h/Fathead minnows => 750 mg/L

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	Not available.
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 .
Contaminated packaging	Not available.

14. TRANSPORT INFORMATION

ADR

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.



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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.

16. OTHER INFORMATION

Manufacturer 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

Finalized date 22-May-2009

Prepared by

Approved by

Sections changed Not available.

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

List of relevant R phrases R36/38 Irritating to eyes and skin.

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

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