



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture C4810Series
Registration number N/A
Synonyms None.
Issue date 28-Jun-2013
Version number 01

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Inkjet printing
Uses advised against None known.

Company identification

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Poison Information Center 0207771 5307

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Emergency overview Contact with skin and eyes may result in irritation. Contact with skin and eyes may result in irritation.

Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Not classified as a health hazard.
Environmental hazards Not classified for hazards to the environment.
Specific hazards Not available.
Main symptoms Not available.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

Contains: 2-pyrrolidone, Carbon black, Water
R-phrases(s) Not available.
S-phrases(s) Not available.
Authorization number Not available.

Supplemental label information Not applicable.

2.3. Other hazards

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. This black ink is not classified according to EU Directive 1999/45/EC. 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. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	<80	7732-18-5 231-791-2	-	-	
Classification:	DSD: -				
	CLP: -				
2-pyrrolidone	<10	616-45-5 210-483-1	-	-	
Classification:	DSD: Xi;R36				
	CLP: Eye Irrit. 2;H319				
Carbon black	<5	1333-86-4 215-609-9	-	-	
Classification:	DSD: -				
	CLP: -				

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.
Carbon black is present only in a bound form in this preparation.

SECTION 4: First aid measures

General information

Not available.

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

Not available.

4.3. Indication of any immediate medical attention and special treatment needed

No notes to physicians.

SECTION 5: Firefighting measures

General fire hazards

Not available.

5.1. Extinguishing media

Suitable extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.

5.2. Special hazards arising from the substance or mixture

Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters	Not available.
Special fire fighting procedures	Not available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wear appropriate personal protective equipment.
For emergency responders	Not available.

6.2. Environmental precautions Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up 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.

6.4. Reference to other sections Not available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities Keep out of the reach of children. Keep away from excessive heat or cold.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Carbon black (CAS 1333-86-4)	STEL	7 mg/m ³
	TWA	3.5 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Not available.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Use in a well ventilated area.
Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

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

Eye/face protection Not available.

Skin protection

- **Hand protection** Not available.

- **Other** Protected gloves not required under intended use.

Respiratory protection Not available.

Thermal hazards Not available.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Not available.

Color Black.

Odor Not available.

Odor threshold Not available.

pH	7.8 - 8.8
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not determined
Flash point	Not applicable.
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Vapor pressure	Not determined
Relative density	Not available.
Solubility(ies)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	>= 2 cp
Explosive properties	Not available.
Oxidizing properties	Not determined
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Not available.
10.5. Incompatible materials	Incompatible with strong bases and oxidizing agents.
10.6. Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

SECTION 11: Toxicological information

General information	Not available.
Information on likely routes of exposure	
Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Symptoms	Not available.

11.1. Information on toxicological effects

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Carbon black (CAS 1333-86-4)		
Acute		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Not available.	

Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	This ink formulation has not been tested for toxicological effects. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

SECTION 12: Ecological information

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

12.1. Toxicity

Components	Species	Test Results
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2-pyrrolidone (CAS 616-45-5)

Aquatic

Crustacea	EC50	Water flea (<i>Daphnia pulex</i>)	13.21 mg/l, 48 hours
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12.2. Persistence and degradability Not available.

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow)

2-pyrrolidone	-0.85
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Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Not available.

Contaminated packaging Not available.

EU waste code Not available.

Disposal methods/information 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>.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorizations**Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization**

Not listed.

Restrictions on use**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations**Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances**

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not regulated.

Directive 94/33/EC on the protection of young people at work

Not regulated.

Other 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.

National regulations

Not available.

15.2. Chemical Safety Assessment

Not available.

SECTION 16: Other information

References	Not available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	R36 Irritating to eyes. H319 Causes serious eye irritation.
Revision information	None.
Training information	Not available.
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