



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Identification of the preparation** C8766 Series

**Use of the preparation** Inkjet printing

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

**Hewlett-Packard health effects line**

**(Toll-free within the US)** 1-800-457-4209

**(Direct)** 1-503-494-7199

**General information telephone number**

**HP Customer Care Line** 1-800-474-6836

**(Toll-free)** 1-800-474-6836

**(Direct)** 1-208-323-2551

**Date prepared** Sep 06, 2005

**MSDS number** 67322

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component/Substance	CAS Number	% By Weight
<b>Cyan ink</b>		
Water	7732-18-5	> 60
1,5-pentanediol	111-29-5	< 10
Ethyl alkyl diol	Proprietary	< 7.5
2-pyrrolidone	616-45-5	< 7.5
Substituted phthalocyanine salt #1	Proprietary	< 5
Metal nitrate # 2	Proprietary	< 5
Alkyl diol ethoxylate	Proprietary	< 2.5
<b>Magenta ink</b>		
Water	7732-18-5	> 60
1,5-pentanediol	111-29-5	< 10
Ethyl alkyl diol	Proprietary	< 7.5
2-pyrrolidone	616-45-5	< 7.5
Substituted naphthalenesulfonate salt #11	Proprietary	< 5
Metal nitrate # 2	Proprietary	< 5
Alkyl diol ethoxylate	Proprietary	< 2.5
<b>Yellow ink</b>		
Water	7732-18-5	> 60
1,5-pentanediol	111-29-5	< 10
Ethyl alkyl diol	Proprietary	< 7.5
2-pyrrolidone	616-45-5	< 7.5
Substituted naphthalenesulfonate salt #13	Proprietary	< 7.5
Metal nitrate # 2	Proprietary	< 5
Alkyl diol ethoxylate	Proprietary	< 2.5

**Composition comments** This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

## 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.



# MATERIAL SAFETY DATA SHEET

## Skin contact

*1,5-pentanediol*  
Contact with skin may result in irritation.

*2-pyrrolidone*  
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.

*Metal nitrate # 2*  
Contact with skin may result in irritation.

*Substituted naphthalenesulfonate salt #13*  
Contact with skin may result in irritation.

## Eye contact

*1,5-pentanediol*  
Contact with eyes may result in irritation.

*2-pyrrolidone*  
Contact with eyes may result in irritation.

*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.

*Metal nitrate # 2*  
Contact with eyes may result in irritation.

*Substituted naphthalenesulfonate salt #11*  
Contact with eyes may result in irritation.

*Substituted naphthalenesulfonate salt #13*  
Contact with eyes may result in irritation.

## Inhalation

*2-pyrrolidone*  
Inhalation may result in respiratory irritation.

*Metal nitrate # 2*  
Inhalation may result in respiratory irritation.

*Substituted naphthalenesulfonate salt #13*  
Inhalation may result in respiratory irritation.

## Ingestion

*2-pyrrolidone*  
Ingestion may result in nausea, vomiting and diarrhea.

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

*Metal nitrate # 2*  
Contains nitrate salts, may cause methemoglobinemia.

## 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.



# MATERIAL SAFETY DATA SHEET

---

## 4. FIRST AID MEASURES

### First aid procedures

<b>Skin</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Eye</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>Inhalation</b>	Remove to fresh air. If symptoms persist, 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>Hazardous combustion products</b>	Refer to section 10.
<b>Extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Unusual fire and explosion hazard</b>	None known.
<b>Special firefighting procedures</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>Procedures if material is released or spilled</b>	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.

---

## 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.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure limit values</b>	None established.
<b>Personal protective equipment</b>	
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Exposure guidelines</b>	Use in a well ventilated area.

---

## 9. PHYSICAL & CHEMICAL PROPERTIES

<b>pH</b>	6.2 - 6.8
<b>Vapor pressure</b>	Not determined
<b>Boiling point</b>	Not determined
<b>Solubility</b>	Soluble in water
<b>Specific gravity</b>	1 - 1.2
<b>VOC content</b>	< 3 %
<b>Flash point</b>	> 93.3 °C (> 200 °F)



# MATERIAL SAFETY DATA SHEET

Viscosity	> 2 cp
Vapor density	> 1 (air = 1.0)
Evaporation rate	Not determined
Flammability	Not determined
Oxidizing properties	Not determined
Color	Cyan, magenta, yellow

---

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable under recommended storage conditions.
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.
Incompatibility	Incompatible with strong bases and oxidizing 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	<i>Cyan ink</i> LC50/96h/Fathead minnows =< 400 mg/L <i>Magenta ink</i> LC50/96h/Fathead minnows =< 400 mg/L <i>Yellow ink</i> LC50/96h/Fathead minnows =< 400 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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
-----------------------	---

---

## 14. TRANSPORTATION 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/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China.
US federal regulations	US TSCA 12(b): Does not contain listed chemicals.



# MATERIAL SAFETY DATA SHEET

HMIS ratings	Health:	1
	Flammability:	1
	Physical hazard:	0
NFPA ratings	Health:	1
	Flammability:	1
	Instability:	0

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Hazard categories  
Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

---

## 16. OTHER INFORMATION

**Other information** This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

**Issue date** Sep 6 2005 8:58AM

**Revision** 4

**Replaces sheet dated** Sep 6 2005 8:34AM

**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



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Identification of the preparation** C9364 Series

**Use of the preparation** Inkjet printing

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

**Hewlett-Packard health effects line**

**(Toll-free within the US)** 1-800-457-4209

**(Direct)** 1-503-494-7199

**General information telephone number**

**HP Customer Care Line** 1-800-474-6836

**(Toll-free)** 1-800-474-6836

**(Direct)** 1-208-323-2551

**Date prepared** Feb 28, 2007

**MSDS number** 64126

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight
Water	7732-18-5	> 70
2-pyrrolidone	616-45-5	< 10
1,5-pentanediol	111-29-5	< 5
Modified carbon black #6	Proprietary	< 5
Substituted diol	Proprietary	< 2.5

**Composition comments** This ink supply contains an aqueous ink formulation.  
This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

## 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.

**Skin contact**

*1,5-pentanediol*  
Contact with skin may result in irritation.

*2-pyrrolidone*  
Contact with skin may result in irritation.

*Substituted diol*  
Contact with skin may result in irritation.

**Eye contact**

*1,5-pentanediol*  
Contact with eyes may result in irritation.

*2-pyrrolidone*  
Contact with eyes may result in irritation.

*Substituted diol*  
Contact with eyes may result in irritation.

**Inhalation**

*2-pyrrolidone*  
Inhalation may result in respiratory irritation.



# MATERIAL SAFETY DATA SHEET

## Ingestion

*2-pyrrolidone*

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

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.

---

## 4. FIRST AID MEASURES

### First aid procedures

#### Skin

Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

#### 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.

#### 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, CO<sub>2</sub>, 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.

---

## 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.



# MATERIAL SAFETY DATA SHEET

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure limit values</b>	Exposure limits have not been established for this product.
<b>Personal protective equipment</b>	
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Exposure guidelines</b>	Use in a well ventilated area.

---

## 9. PHYSICAL & CHEMICAL PROPERTIES

<b>pH</b>	7.5 - 8.2
<b>Vapor pressure</b>	Not determined
<b>Boiling point</b>	Not determined
<b>Solubility</b>	Soluble in water
<b>Specific gravity</b>	1 - 1.2
<b>VOC content</b>	< 3 %
<b>Flash point</b>	> 93.3 °C (> 200 °F)
<b>Viscosity</b>	> 2 cp
<b>Vapor density</b>	> 1 (air = 1.0)
<b>Evaporation rate</b>	Not determined
<b>Flammability</b>	Not determined
<b>Oxidizing properties</b>	Not determined
<b>Color</b>	Black

---

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

<b>Stability</b>	Stable under recommended storage conditions.
<b>Hazardous polymerization</b>	Will not occur.
<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>Incompatibility</b>	Incompatible with strong bases and oxidizing 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

<b>Aquatic toxicity</b>	LC50/96h/Fathead minnows =>750 mg/L.
-------------------------	--------------------------------------

---

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
------------------------------	---

---

## 14. TRANSPORTATION INFORMATION

<b>General</b>	Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.
----------------	---





# MATERIAL SAFETY DATA SHEET

## IATA

Proper shipping name	Not applicable
Hazard class	Not applicable
Packaging exceptions	None
Identification number (UN)	None
Packing group	N/A

---

## 15. REGULATORY INFORMATION

<b>International regulations</b>	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.
<b>US federal regulations</b>	US TSCA 12(b): Contains sodium nitrite (CASRN 7632-00-0), subject to export notification requirements.
<b>HMIS ratings</b>	Health: 1 Flammability: 1 Physical hazard: 1
<b>NFPA ratings</b>	Health: 1 Flammability: 1 Instability: 1
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>Section 302 extremely hazardous substance</b>	No
<b>Section 311 hazardous chemical</b>	Yes
<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

---

## 16. OTHER INFORMATION

<b>Other information</b>	This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).
<b>Issue date</b>	Feb 28 2007 2:05PM
<b>Revision</b>	5
<b>Replaces sheet dated</b>	Feb 1 2007 9:00AM
<b>Disclaimer</b>	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.
<b>MSDS sections updated</b>	3. Hazards Identification: Chronic health effects



# MATERIAL SAFETY DATA SHEET

## 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