



# SAFETY DATA SHEET

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

**Identification of the substance/preparation** Q2362S

**Use of the preparation** Inkjet printing

**Revision Date** 15-Dec-2007

**CAS #** Mixture

**Product code(s)** OPG/EMO

**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

**Classification** R52/53

**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.

*Alkyldiol ethoxylate*  
Contact with skin may result in severe irritation.

*Amino alkyldiol*  
Contact with skin may result in irritation.

*Ammonium nitrate*  
Contact with skin may result in irritation.

*Ethyl alkyldiol*  
Contact with skin may result in mild irritation.

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



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## 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.

### *Amino alkyldiol*

Contact with eyes may result in irritation.

### *Ammonium nitrate*

Contact with eyes may result in irritation.

### *Ethyl alkyldiol*

Contact with eyes may result in mild irritation.

### *Metal nitrate #2*

Contact with eyes may result in irritation.

## Inhalation

### *2-pyrrolidone*

Inhalation may result in respiratory irritation.

### *Amino alkyldiol*

Inhalation may result in respiratory irritation.

### *Ammonium nitrate*

Inhalation may result in respiratory irritation.

### *Metal nitrate #2*

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.

### *Ammonium nitrate*

Contains nitrate salts, may cause methemoglobinemia.

### *Metal nitrate #2*

Contains nitrate salts, may cause methemoglobinemia.

### *Substituted phthalocyanine salt #2*

Harmful if swallowed.

## 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

Cyan ink:

Substituted phthalocyanine salt: Prolonged ingestion exposure may cause serious damage to health.

### 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.

### Physical hazards

Not classified as a physical hazard.

### Health hazards

Not classified as a health hazard.



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**Environmental hazards**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Other information**

This Cyan ink is classified for environmental effects according to EU Directive 1999/45/EC with R52-53. The magenta and yellow inks are not classified according to EU Directive 1999/45/EC.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight	EU number	EU classification
<b>Cyan ink</b>				
Water	7732-18-5	> 60	231-791-2	
1,5-pentanediol	111-29-5	< 10	203-854-4	
Ethyl alkyldiol	Proprietary	< 7.5	Proprietary	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	R36/38
Metal nitrate #2	Proprietary	< 7.5	Proprietary	F; R36/37/38, 8
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn, N; R21/22, 38, 41, 51, 51/53
Substituted phthalocyanine salt #2	Proprietary	< 2.5	Proprietary	Xn, N; R22, 48/22, 51/53
Ammonium nitrate	6484-52-2	< 2.5	229-347-8	R36/37/38, 8
<b>Magenta ink</b>				
Water	7732-18-5	> 60	231-791-2	
1,5-pentanediol	111-29-5	< 10	203-854-4	
Ethyl alkyldiol	Proprietary	< 7.5	Proprietary	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	R36/38
Metal nitrate #2	Proprietary	< 7.5	Proprietary	F; R36/37/38, 8
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn, N; R21/22, 38, 41, 51, 51/53
Amino alkyldiol	Proprietary	< 2.5	Proprietary	
Ammonium nitrate	6484-52-2	< 2.5	229-347-8	R36/37/38, 8
<b>Yellow ink</b>				
Water	7732-18-5	> 60	231-791-2	
1,5-pentanediol	111-29-5	< 10	203-854-4	
Ethyl alkyldiol	Proprietary	< 7.5	Proprietary	
2-pyrrolidone	616-45-5	< 7.5	210-483-1	R36/38
Metal nitrate #2	Proprietary	< 7.5	Proprietary	F; R36/37/38, 8
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xn, N; R21/22, 38, 41, 51, 51/53
Ammonium nitrate	6484-52-2	< 2.5	229-347-8	R36/37/38, 8

**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.



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## 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.

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## 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.

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## 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

<b>Additional exposure data</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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Not available
<b>Physical state</b>	Liquid.
<b>Form</b>	Not available
<b>Colour</b>	Cyan, magenta, yellow
<b>Odour</b>	Not available
<b>Odor threshold</b>	Not available
<b>pH</b>	6.5 - 8.75
<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



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<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		
Ethyl alkylidiol	Proprietary	Inhalation LC50 Rat: >0.29 mg/L/4H; Oral LD50 Rat: 5000 mg/kg; Dermal LD50 Rat: >500 mg/kg
Toxicology Data - Selected LD50s and LC50s		
Ammonium nitrate	6484-52-2	Inhalation LC50 Rat: >88.8 mg/L/4H; Oral LD50 Rat: 2217 mg/kg
Toxicology Data - Selected LD50s and LC50s		
Water	7732-18-5	Oral LD50 Rat: >90 mL/kg
Toxicology Data - Selected LD50s and LC50s		
1,5-pentanediol	111-29-5	Oral LD50 Rat: 2 g/kg; Dermal LD50 Rabbit: >20000 mg/kg
Toxicology Data - Selected LD50s and LC50s		
Metal nitrate #2	Proprietary	Oral LD50 Rat: 5440 mg/kg
Toxicology Data - Selected LD50s and LC50s		
Amino alkylidiol	Proprietary	Oral LD50 Rat: 5900 mg/kg
Toxicology Data - Selected LD50s and LC50s		
2-pyrrolidone	616-45-5	Oral LD50 Rat: 8 mg/kg

<b>Toxicological information</b>	Refer to Section 3 for potential health effects and Section 4 for first aide measures. <i>Cyan ink</i> Refer to Section 3 for potential health effects and Section 4 for first aide measures. <i>Magenta ink</i> Refer to Section 3 for potential health effects and Section 4 for first aide measures. <i>Yellow ink</i> Refer to Section 3 for potential health effects and Section 4 for first aide measures.
<b>Further information</b>	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.



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## 12. ECOLOGICAL INFORMATION

### Aquatic toxicity

#### *Cyan ink*

LC50/96h/fathead minnows =< 400 mg/L  
Static acute toxicity (trout), survival (100 mg/L) = 100%  
Static acute toxicity (trout), survival (10 mg/L) = 100%

#### *Magenta ink*

LC50/96h/fathead minnows =< 400 mg/L  
Static acute toxicity (trout), survival (100 mg/L) = 100%  
Static acute toxicity (trout), survival (10 mg/L) = 100%

#### *Yellow ink*

LC50/96h/fathead minnows =< 400 mg/L  
Static acute toxicity (trout), survival (100 mg/L) = 100%  
Static acute toxicity (trout), survival (10 mg/L) = 100%

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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

<b>Proper shipping name</b>	Not applicable
<b>Hazard class</b>	Not applicable
<b>UN number</b>	None.
<b>Packing group</b>	N/A
<b>Packaging exceptions</b>	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.

### Labelling

#### R-phrases

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### EC Label

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



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## 16. OTHER INFORMATION

<b>Manufacturer information</b>	Hewlett-Packard Company 1000 NE Circle Boulevard Corvallis, OR 97330-4239 US
<b>List of relevant R phrases</b>	R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Other information</b>	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
<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>Issue date</b>	15-Dec-2007
<b>Revised sections</b>	9. Physical and chemical properties: Appearance 9. Physical and chemical properties: Form 9. Physical and chemical properties: Odour 15. Regulatory information: US federal regulations
<b>Explanation of abbreviations</b>	
<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