



# Safety Data Sheet

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

Identification of the substance/preparation	51644Y
Use of the preparation	Inkjet printing
Revision date	18-May-2009
CAS #	Mixture
Company identification	Hewlett-Packard, Ltd. Cain Road, Amen Corner Bracknell, Berkshire, RG12 1HN Telephone 1 344 36-0000  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 Poison Information Center 0207771 5307

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## 2. HAZARDS IDENTIFICATION

### Acute health effects

	Any potential hazards are presumed to be due to exposure to the components.
<b>Skin contact</b>	<i>2-pyrrolidone</i> Contact with skin may result in irritation. <i>Alkyldiol ethoxylate</i> Contact with skin may result in severe irritation. <i>Ethyl alkyldiol</i> Contact with skin may result in mild irritation. <i>Metal nitrate #1</i> Contact with skin may result in irritation.
<b>Eye contact</b>	<i>2-pyrrolidone</i> Contact with eyes may result in irritation. <i>Alkyldiol ethoxylate</i> Contact can cause moderate to severe irritation and possible injury to the eyes. <i>Ethyl alkyldiol</i> Contact with eyes may result in mild irritation. <i>Metal nitrate #1</i> Contact with eyes may result in irritation.
<b>Inhalation</b>	<i>2-pyrrolidone</i> Inhalation may result in respiratory irritation. <i>Metal nitrate #1</i> Inhalation may result in respiratory irritation.



# Safety Data Sheet

## Ingestion

### 2-pyrrolidone

Ingestion may result in nausea, vomiting and diarrhea.

### Alkyldiol ethoxylate

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

### Arylazopyrazolesulfonate salt # 1

Toxic if swallowed.

### Diethylene glycol

Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

### Metal nitrate #1

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

Arylazopyrazolesulfonate 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.

### Environmental hazards

Not classified as an environmental hazard.

### Other information

This yellow 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	< 80	231-791-2	
Ethyl alkyldiol	Proprietary	< 10	Proprietary	
Metal nitrate #1	Proprietary	< 7.5	Proprietary	Xi, O, R36/38, 8
2-pyrrolidone	616-45-5	< 5	210-483-1	Xi, R36/38
Arylazopyrazolesulfonate salt # 1	Proprietary	< 5	Proprietary	T, R25, 52/53
Diethylene glycol	111-46-6	< 5	203-872-2	Xn, R22
Alkyldiol ethoxylate	Proprietary	< 2.5	Proprietary	Xi, Xn, N, R21/22, 38, 41, 51/53

### 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

Remove to fresh air. If symptoms persist, get medical attention.

### Skin contact

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

### 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); Pinsky-Martens Closed Cup

### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, water spray or regular foam.



# Safety Data Sheet

<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.

## 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>Containment procedures</b>	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.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

## 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

### Occupational exposure limits

#### Denmark

Components	Type	Value
Diethylene glycol (111-46-6)	TLV	2.5 ppm 11 mg/m <sup>3</sup>

#### Germany

Components	Type	Value
Diethylene glycol (111-46-6)	AGW	10 ppm 44 mg/m <sup>3</sup>

#### Netherlands

Components	Type	Value
Ethyl alkyldiol (Proprietary)	Ceiling	5 mg/m <sup>3</sup>

#### Sweden

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	90 mg/m <sup>3</sup> 20 ppm
	TWA	45 mg/m <sup>3</sup> 10 ppm
Ethyl alkyldiol (Proprietary)	TWA	5 mg/m <sup>3</sup>

#### Switzerland

Components	Type	Value
Diethylene glycol (111-46-6)	STEL	176 mg/m <sup>3</sup> 40 ppm
	TWA	44 mg/m <sup>3</sup>



# Safety Data Sheet

Components	Type	Value
		10 ppm

## United Kingdom

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	23 ppm 101 mg/m <sup>3</sup>

<b>Additional exposure data</b>	Exposure limits have not been established for this product.
<b>Engineering measures</b>	Provide adequate ventilation.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
<b>Eye protection</b>	Not required under intended use.
<b>Skin and body protection</b>	Protected gloves not required under intended use.
<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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Not available.
<b>Color</b>	Yellow
<b>Odor</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	6 - 6.6
<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>Vapor pressure</b>	Not determined
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Viscosity</b>	> 2 cp
<b>Vapor 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 %



# Safety Data Sheet

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## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	Incompatible with strong bases and oxidizing agents.
<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 polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

<b>Oral toxicity</b>	LD50/oral/rat >2500mg/kg (OECD 423)
<b>Toxicological information</b>	Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC. Complete toxicity data are not available for this specific formulation
<b>Further information</b>	Complete toxicity data are not available for this specific formulation. Refer to Section 3 for potential health effects and Section 4 for first aide measures.

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## 12. ECOLOGICAL INFORMATION

<b>Aquatic toxicity</b>	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

<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> .
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## 14. TRANSPORT INFORMATION

### ADR

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous 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
<b>Packaging non bulk</b>	None
<b>Labels required</b>	None

**General** Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.

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## 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>Labeling</b>	
<b>Contains</b>	2-pyrrolidone, Alkyldiol ethoxylate, Arylazopyrazolesulfonate salt # 1, Diethylene glycol, Ethyl alkyldiol, Metal nitrate #1, Water
<b>EC Label</b>	This product does not require a label according to EU Directive 1999/45/EC.



# Safety Data Sheet

## 16. OTHER INFORMATION

<b>Manufacturer information</b>	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
<b>List of relevant R phrases</b>	R8 Contact with combustible material may cause fire. R21/22 Harmful in contact with skin and if swallowed. R22 Harmful if swallowed. R25 Toxic if swallowed. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R41 Risk of serious damage to eyes. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 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>	18-May-2009
<b>This data sheet contains changes from the previous version in section(s):</b>	HAZARDS IDENTIFICATION: Routes of exposure EXPOSURE CONTROLS/PERSONAL PROTECTION: Respiratory protection
<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