



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** 51624A Rev B

**Product use** Inkjet printing

**Version #** 04

**Revision date** 15-Sep-2010

**CAS #** Mixture

**Company identification** Hewlett-Packard Company  
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## 2. Hazards Identification

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

### Acute health effects

#### Skin contact

Any potential hazards are presumed to be due to exposure to the components.

*2-pyrrolidone*

Contact with skin may result in irritation.

*Alkyldiol*

Contact with skin may result in irritation.

*Food Black 2 acid salt #3*

This product may cause an allergic skin reaction.

#### Eye contact

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Alkyldiol*

Contact with eyes may result in irritation.

#### Inhalation

*2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Alkyldiol*

Inhalation may result in respiratory irritation.

#### Ingestion

*2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

*Ethylene glycol*

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

*Food Black 2 acid salt #3*

Toxic 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

<b>Chronic health effects</b>	Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction.
<b>Carcinogenicity</b>	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.

### 3. Composition / Information on Ingredients

Components	CAS #	Percent
Water	7732-18-5	< 40
2-pyrrolidone	616-45-5	< 30
Alkyldiol	Proprietary	< 7.5
Ethylene glycol	107-21-1	< 25
Food Black 2 acid salt #3	Proprietary	< 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).

### 4. First Aid Measures

#### First aid procedures

<b>Eye contact</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>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<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>Flammable properties</b>	None known.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific methods</b>	None established.
<b>Hazardous combustion products</b>	Refer to section 10.

### 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>Methods for containment</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.
<b>Other information</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.

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## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### ACGIH

Components	Type	Value	Form
Ethylene glycol (107-21-1)	TWA	100.0000 mg/m3	Aerosol.

#### U.S. - OSHA

Components	Type	Value
Ethylene glycol (107-21-1)	Ceiling	50.0000 ppm 125.0000 mg/m3

#### U.S. - Tennessee

Components	Type	Value
Ethylene glycol (107-21-1)	Ceiling	50.0000 ppm 125.0000 mg/m3

**Exposure guidelines** Exposure limits have not been established for this product.

**Engineering controls** Use in a well ventilated area.

### Personal protective equipment

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

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

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Not available.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Not available.
<b>pH</b>	7 - 7.4
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not determined
<b>Flash point</b>	> 200 °F (> 93.3 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not determined
<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>Vapor density</b>	Not available.
<b>Specific gravity</b>	1 - 1.2
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	> 2 cp
<b>VOC</b>	< 3 %

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## 10. Chemical Stability & Reactivity Information

**Chemical stability** Stable under recommended storage conditions.

<b>Incompatible materials</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>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

<b>Oral toxicity</b>	LD50/oral/rat >2500 mg/kg (OECD 401) Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
<b>Carcinogenicity</b>	
<b>ACGIH Carcinogens</b>	
Ethylene glycol (CAS 107-21-1)	A4 Not classifiable as a human carcinogen.
<b>Acute toxicity</b>	Non- irritant in rabbit (OECD 404) Not classified for dermal irritation according to EU Directive 67/548/EEC and 1999/45/EC.
<b>Serious eye damage/eye irritation</b>	Non - irritant in rabbit (OECD 405)
<b>Skin sensitization</b>	Not available.
<b>Sensitization</b>	Sensitizer in guinea pig (OECD 406) Repeated contact may cause allergic reactions in very susceptible persons.
<b>Symptoms and target organs</b>	
<b>Target Organs (NIOSH)</b>	
Ethylene glycol (CAS 107-21-1)	Central Nervous System Eyes Respiratory system Skin
<b>Further information</b>	Complete toxicity data are not available for this specific formulation Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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## 12. Ecological Information

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

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## 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of in compliance with federal, state, and local regulations.
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## 14. Transport Information

<b>Further information</b>	Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.
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### DOT

Not regulated as dangerous goods.

### IATA

#### Basic shipping requirements:

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

#### Additional information:

<b>Packaging exceptions</b>	None
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#### Basic shipping requirements:

<b>Labels required</b>	None
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#### Additional information:

<b>Packaging non bulk</b>	None
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### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

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## 15. Regulatory Information

**US federal regulations** US TSCA 12(b): Does not contain listed chemicals.

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

Ethylene glycol (CAS 107-21-1) 1.0 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Ethylene glycol (CAS 107-21-1) Listed.

**CERCLA (Superfund) reportable quantity**

None

**Occupational Safety and Health Administration (OSHA)**

**29 CFR 1910.1200 hazardous chemical** No

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

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

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**State regulations**

**US - New Jersey Community RTK (EHS Survey): Listed substance**

Ethylene glycol (CAS 107-21-1) Substance no. 0878

**US - New Jersey Community RTK (EHS Survey): Reportable threshold**

Ethylene glycol (CAS 107-21-1) 500 LBS

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

2-pyrrolidone (CAS 616-45-5) Listed.

Ethylene glycol (CAS 107-21-1) Listed.

**Regulatory information** 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.

Contains Food Black 2 acid salt

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## 16. Other Information

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

**HMIS® ratings** Health: 1  
Flammability: 1  
Physical hazard: 0

**NFPA ratings** Health: 1  
Flammability: 1  
Instability: 0

**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.

**Issue date** 15-Sep-2010

**This data sheet contains changes from the previous version in section(s):**

Hazards Identification: Other information  
Composition / Information on Ingredients: Disclosure Overrides  
11. Toxicological Information: Oral toxicity  
11. Toxicological Information: Acute toxicity  
11. Toxicological Information: Further information  
11. Toxicological Information: Skin sensitization  
11. Toxicological Information: Serious eye damage/eye irritation  
14. Transport Information: Further information

**Manufacturer information**

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**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