



# Material Safety Data Sheet

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## 1. Product and Company Identification

<b>Material name</b>	C5094A
<b>Use of the preparation</b>	Inkjet printing
<b>Version #</b>	02
<b>Revision date</b>	01-Dec-2009
<b>Company identification</b>	Hewlett-Packard Company 3000 Hanover Street Palo Alto, CA 94304-1185 United States Telephone 650-857-1501  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: hpcustomer.inquiries@hp.com
<b>Date prepared</b>	Nov 30, 2009

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## 2. Hazards Identification

<b>Emergency overview</b>	Contact with skin and eyes may result in irritation. Ingestion may result in nausea, vomiting and diarrhea. May cause sensitization of susceptible persons.
<b>Acute health effects</b>	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</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</i> Contact with eyes may result in irritation.
<b>Inhalation</b>	<i>2-pyrrolidone</i> Inhalation may result in respiratory irritation. <i>Alkyldiol</i> Inhalation may result in respiratory irritation.
<b>Ingestion</b>	<i>2-pyrrolidone</i> Ingestion may result in nausea, vomiting and diarrhea. <i>Diethylene glycol</i> Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.
<b>Potential health effects</b>	
<b>Routes of exposure</b>	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



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**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**

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).  
None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

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### 3. Composition / Information on Ingredients

Component/substance	CAS number	% by weight
Water	7732-18-5	< 80
2-pyrrolidone	616-45-5	< 7.5
Alkyldiol	Proprietary	< 5
Diethylene glycol	111-46-6	< 5
Triethanolamine	102-71-6	< 1.5
Carbon black	1333-86-4	< 1

**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).

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### 4. First Aid Measures

**First aid procedures****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.

**Skin contact**

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

**Inhalation**

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

**Ingestion**

If material is ingested, immediately contact a physician or poison control center.

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### 5. Fire Fighting Measures

**Flash point and method**

> 200 °F (> 93.3 °C); Pensky-Martens Closed Cup

**Hazardous combustion products**

Refer to section 10.

**Flammable properties**

Combustion generates toxic fumes of fluorides/fluorinated compounds; aldehydes.

**Extinguishing media****Suitable extinguishing media**

CO<sub>2</sub>, water, dry chemical, or foam

**Unsuitable extinguishing media**

None known.

**Unusual fire and explosion hazard**

Combustion generates toxic fumes of fluorides/fluorinated compounds; aldehydes.

**Special firefighting procedures**

None established.

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### 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.

**Other information**

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.



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## 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.
<b>Storage</b>	Keep out of the reach of children. Keep away from excessive heat or cold. Store away from strong oxidizers.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### ACGIH

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5 mg/m <sup>3</sup>
Triethanolamine (102-71-6)	TWA	5 mg/m <sup>3</sup>

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

### Personal protective equipment

<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Eye / face protection</b>	Not required under intended use.
<b>Skin protection</b>	Protected gloves not required under intended use.
<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>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Color</b>	Gray
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Not available.
<b>pH</b>	9.4
<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</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>Vapor density</b>	> 1 (air=1.00)
<b>Specific gravity</b>	1 - 1.1
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not determined
<b>Decomposition temperature</b>	Not available.



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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	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. hydrogen fluoride, fluorinated hydrocarbons
<b>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

### Carcinogenicity

#### IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (1333-86-4)	Inadequate data.
Triethanolamine (102-71-6)	Inadequate data.

#### US ACGIH Threshold Limit Values: A4 carcinogen

Carbon black (1333-86-4)	Group A4 Not classifiable as a human carcinogen.
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### Symptoms and target organs

#### Target Organs (NIOSH)

Carbon black (1333-86-4)	Eyes
Carbon black (1333-86-4)	Respiratory system

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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. 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

### 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>General</b>	Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.
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## 15. Regulatory Information

<b>US federal regulations</b>	US TSCA 12(b): Does not contain listed chemicals.
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### CERCLA (Superfund) reportable quantity

None

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

<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**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.

## State regulations

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

2-pyrrolidone (616-45-5)	Listed.
Carbon black (1333-86-4)	Listed.
Diethylene glycol (111-46-6)	Listed.
Triethanolamine (102-71-6)	Listed.

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## 16. Other Information

**HMIS® ratings** Health: 1  
Flammability: 2  
Physical hazard: 0

**NFPA ratings** Health: 1  
Flammability: 2  
Instability: 0

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**Revision** 2

**Replaces sheet dated** Nov 28 2006 12:49PM

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

**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.

**MSDS sections updated** Hazards Identification: Carcinogenicity  
8. Exposure Controls / Personal Protection: Respiratory protection  
8. Exposure Controls / Personal Protection: Eye / face protection  
8. Exposure Controls / Personal Protection: Skin protection  
12. Ecological Information: Aquatic toxicity  
14. Transport Information: General



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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