



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification of the preparation C9409A

Use of the preparation Inkjet printing

Manufacturer information Hewlett-Packard Company
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Hewlett-Packard health effects line

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Date prepared Nov 16, 2006

MSDS number 204409

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component/Substance	CAS Number	% By Weight
Matte Black ink		
Water	7732-18-5	> 70
2-pyrrolidone	616-45-5	< 20
Ethyl alkyldiol	Proprietary	< 5
1,5-pentanediol	111-29-5	< 5
Red ink		
Water	7732-18-5	> 70
2-pyrrolidone	616-45-5	< 15
Diethylene glycol	111-46-6	< 7.5
Alkyldiol	Proprietary	< 5
Triethanolamine	102-71-6	< 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).

3. HAZARDS IDENTIFICATION

Emergency overview Contact with skin and eyes may result in irritation. Ingestion may result in nausea, vomiting and diarrhea. May cause sensitization of susceptible persons.

Acute health effects

Skin contact

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

2-pyrrolidone
Contact with skin may result in irritation.

Alkyldiol
Contact with skin may result in irritation.

Ethyl alkyldiol
Contact with skin may result in mild irritation.

Triethanolamine
Contact with skin may result in irritation. May cause sensitization of susceptible persons by skin contact.



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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
Contact with eyes may result in irritation.

Ethyl alkyldiol
Contact with eyes may result in mild irritation.

Triethanolamine
Contact with eyes may result in mild irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Alkyldiol
Inhalation may result in respiratory irritation.

Triethanolamine
Inhalation may result in respiratory irritation.

Ingestion

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

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

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.

4. FIRST AID MEASURES

First aid procedures

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

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

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

5. FIRE FIGHTING MEASURES

Flash point and method > 200 °F; Pensky-Martens Closed Cup

Auto ignition temperature Not determined

Hazardous combustion products Refer to section 10.

Extinguishing media CO₂, water, dry chemical, or foam



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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. Remove and wash contaminated clothing before re-use.
Storage	Keep out of the reach of children. Keep away from excessive heat or cold. Store away from strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values	Exposure limits have not been established for this product.
ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)	
Triethanolamine	102-71-6 5 mg/m3 TWA
Personal protective equipment	
General	Use personal protective equipment to minimize exposure to skin and eye.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Exposure guidelines	Use in a well ventilated area.

9. PHYSICAL & CHEMICAL PROPERTIES

pH	9.2
Vapor pressure	Not determined
Boiling point	Not determined
Solubility	Soluble in water
Specific gravity	1 - 1.1
Flash point	> 200 °F
Vapor density	> 1 (air=1.0)
Evaporation rate	Not determined
Flammability	Not determined
Oxidizing properties	Not determined
Color	Matte black and Red

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. hydrogen fluoride, fluorinated hydrocarbons, aldehydes, ketones



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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

Matte Black ink
LC50/96h/Fathead minnows =greater than 750mg/L
Red ink
LC50/96h/Fathead minnows => 750mg/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 <http://www.hp.com/recycle>.

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): Contains sodium nitrite, CAS 7632-00-0, matte black ink only, subject to export notification requirements.

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



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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).

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Revision 1

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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