



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation C9460Series[C]
Product use Inkjet printing
Version # 04
Revision date 24-Feb-2011
Company identification 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
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2. 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

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

Skin contact

2-pyrrolidone
Contact with skin may result in irritation.

Alkyldiol
Contact with skin may result in irritation.

Polymer 683-K salt
Contact with skin may result in irritation.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.

Alkyldiol
Contact with eyes may result in irritation.

Polymer 683-K salt
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.

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

Polymer 683-K salt
Swallowing large amounts may cause digestive discomfort. Ingestion may result in nausea, vomiting and diarrhea.

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.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Water	7732-18-5	70 - 80
2-pyrrolidone	616-45-5	5 - 7.5
Diethylene glycol	111-46-6	5 - 7.5
Alkyldiol	Proprietary	2.5 - 5
Triethanolamine	102-71-6	< 1.5
Polymer 683-K salt		< 2.5

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).
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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.

5. Fire Fighting Measures

Flammable properties	Combustion generates toxic fumes of fluoride/fluorine compounds; aldehydes, ketones, acetylene.
Extinguishing media	
Suitable extinguishing media	CO ₂ , water, dry chemical, or foam
Unsuitable extinguishing media	None known.
Specific methods	None established.
Hazardous combustion products	Refer to section 10.

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.

7. Handling and Storage

Handling	Avoid contact with skin, eyes and clothing.
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

Occupational exposure limits

ACGIH

Components	Type	Value
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Triethanolamine (102-71-6)	TWA	5.0000 mg/m3
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U.S. - WEEL

Components	Type	Value
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Diethylene glycol (111-46-6)	TWA	10.0000 mg/m3
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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.

9. Physical & Chemical Properties

Appearance

Not available.

Color

Cyan

Odor

Not available.

Odor threshold

Not available.

Physical state

Liquid

Form

Not available.

pH

9.4

Melting point

Not available.

Freezing point

Not available.

Boiling point

Not determined

Flash point

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

Evaporation rate

Not determined

Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air, lower, % by volume

Not determined

Vapor pressure

Not determined

Vapor density

Not available.

Specific gravity

1 - 1.1

Relative density

Not available.

Solubility (water)

Soluble in water

Auto-ignition temperature

Not determined

Decomposition temperature

Not available.

VOC

< 236 g/l

Other information

VOC content (less water, less exempt compounds) = < 913 g/L (U.S. requirement, not for emissions)

VOC data based on formulation (Organic compounds minus solids)

10. Chemical Stability & Reactivity Information

Chemical stability

Stable under recommended storage conditions.

Incompatible materials

Incompatible with strong bases and oxidizing agents.

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

Possibility of hazardous reactions Will not occur.

11. Toxicological Information

Serious eye damage/eye irritation Not available.

Skin sensitization Not available.

Further information This ink formulation has not been tested for toxicological effects.
Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological Information

Aquatic toxicity LC50/96h/Fathead minnows =>750 mg/L

Persistence and degradability Not available.

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. Transport Information

Further information Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.

DOT

Not regulated as dangerous goods.

IATA

Basic shipping requirements:

Proper shipping name Not applicable

Hazard class Not applicable

UN number none

Packing group N/A

Additional information:

Packaging exceptions N/A

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

State regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance

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

Diethylene glycol (CAS 111-46-6) Listed.

Regulatory information

All chemical substances in this product are notified or exempt from notification under chemical substance notification laws in the following countries: Australia, Canada, European Union, Japan, New Zealand, Switzerland, and USA..

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: 2
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 2
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

24-Feb-2011

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

9. Physical & Chemical Properties: Other information

Manufacturer information

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

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



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation C9460Series[MB]
Synonym(s) Matte Black Ink
Product use Inkjet printing
Version # 08
Revision date 24-Feb-2011
Company identification Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

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2. Hazards Identification

Emergency overview Contact with skin and eyes may result in irritation. Ingestion may result in nausea, vomiting and diarrhea.

Acute health effects

Skin contact Any potential hazards are presumed to be due to exposure to the components.
1,5-pentanediol
Contact with skin may result in irritation.
2-pyrrolidone
Contact with skin may result in irritation.
Ethyl alkyldiol
Contact with skin may result in mild irritation.

Eye contact *1,5-pentanediol*
Contact with eyes may result in irritation.
2-pyrrolidone
Contact with eyes may result in irritation.
Ethyl alkyldiol
Contact with eyes may result in mild irritation.

Inhalation *2-pyrrolidone*
Inhalation may result in respiratory irritation.

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

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.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Water	7732-18-5	70 - 80
2-pyrrolidone	616-45-5	10 - 15
1,5-pentanediol	111-29-5	1 - 2.5
Ethyl alkyldiol	Proprietary	1 - 2.5

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

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 ingestion of a large amount does occur, seek medical attention.

5. Fire Fighting Measures

Flammable properties Combustion generates toxic fumes of fluorides/fluorine compounds.

Extinguishing media

Suitable extinguishing media	CO ₂ , water, dry chemical, or foam
Unsuitable extinguishing media	None known.

Specific methods None established.

Hazardous combustion products Refer to section 10.

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.

7. Handling and Storage

Handling Avoid contact with skin, eyes and clothing.

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 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.

9. Physical & Chemical Properties

Appearance Not available.

Color Black.

Odor Not available.

Odor threshold	Not available.
Physical state	Liquid
Form	Not available.
pH	9.2
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not determined
Flash point	> 200 °F (> 93.3 °C) Pensky-Martens Closed Cup
Evaporation rate	Not determined
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not determined
Vapor pressure	Not determined
Vapor density	Not available.
Specific gravity	1 - 1.1
Relative density	Not available.
Solubility (water)	Soluble in water
Auto-ignition temperature	Not determined
Decomposition temperature	Not available.
VOC	< 240 g/l
Other information	VOC content (less water, less exempt compounds) = < 958 g/L (U.S. requirement, not for emissions)

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Incompatible materials	Incompatible with strong bases and oxidizing agents.
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
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Serious eye damage/eye irritation	Not available.
Skin sensitization	Not available.
Further information	This ink formulation has not been tested for toxicological effects. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological Information

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

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 .
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14. Transport Information

Further information	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:

Proper shipping name	Not applicable
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Hazard class Not applicable
UN number None
Packing group N/A
Additional information:
Packaging exceptions None

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory Information

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 - Pennsylvania RTK - Hazardous Substances: Listed substance

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

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

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Issue date 24-Feb-2011

Manufacturer information Hewlett-Packard Company
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Corvallis, OR 97330-4239 US
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209

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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