



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	CB323 Series
Use of the preparation	Inkjet printing
Version #	05
Revision date	01-29-2009
CAS #	Mixture
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 (Direct) 1-503-494-7199 HP Customer Care Line (Toll-free within the US) 1-800-474-6836 (Direct) 1-208-323-2551
Date prepared	Jan 29, 2009
MSDS number	332948

2. Hazards Identification

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

Acute health effects

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

Skin contact

1-(2-hydroxyethyl)-2-pyrrolidone
Contact with skin may result in irritation.

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

Aliphatic diol
Contact with skin may result in irritation.

Ethyl alkyldiol
Contact with skin may result in mild irritation.

Metal nitrate # 2
Contact with skin may result in irritation.

Eye contact

1-(2-hydroxyethyl)-2-pyrrolidone
Contact with eyes may result in irritation.

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

Aliphatic diol
Contact with eyes may result in irritation.

Ethyl alkyldiol
Contact with eyes may result in mild irritation.

Metal nitrate # 2
Contact with eyes may result in irritation.

Substituted phthalocyanine salt #5
Risk of serious damage to eyes.



MATERIAL SAFETY DATA SHEET

Inhalation

1-(2-hydroxyethyl)-2-pyrrolidone

Inhalation may result in respiratory irritation.

Aliphatic diol

Inhalation may result in respiratory irritation.

Metal nitrate # 2

Inhalation may result in respiratory irritation.

Ingestion

1-(2-hydroxyethyl)-2-pyrrolidone

Ingestion may result in nausea, vomiting and diarrhea.

Metal nitrate # 2

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

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

Component/substance	CAS number	% by weight
Water	7732-18-5	> 65
1,5-pentanediol	111-29-5	< 10
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10
Ethyl alkyldiol	Proprietary	< 10
Metal nitrate # 2	Proprietary	< 10
Substituted phthalocyanine salt #5	Proprietary	< 10
Aliphatic diol	Proprietary	< 2.5
Phenylenediamine derivative	Proprietary	< 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

Flash point and method

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

Hazardous combustion products

Refer to section 10.

Flammable properties

None known.

Extinguishing media

Suitable extinguishing media

CO₂, water, dry chemical, or foam

Unsuitable extinguishing media

None known.



MATERIAL SAFETY DATA SHEET

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.
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.

8. Exposure Controls / Personal Protection

Exposure guidelines Exposure limits have not been established for this product.
Personal protective equipment
General Use personal protective equipment to minimize exposure to skin and eye.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color Cyan/Blue
Odor threshold Not available.
Physical state Not available.
Form liquid
pH 7.2 - 7.4
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 Not available.
Flammability limits in air, upper, % by volume Not available.
Flammability limits in air, lower, % by volume Not Determined
Vapor pressure Not determined
Vapor density 1 (air = 1.0)
Specific gravity Not determined
Relative density Not available.
Solubility (water) Soluble in water
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not Determined
Decomposition temperature Not available.
VOC 3 % w/w



MATERIAL SAFETY DATA SHEET

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.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Not available.

12. Ecological Information

Aquatic toxicity	LC50/96h/Fathead minnows =463 mg/L Static acute toxicity (trout), survival (100 mg/L) = 100% Static acute toxicity (trout), survival (10 mg/L) = 100%
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

IATA

Proper shipping name	Not Applicable
Packing group	None

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

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity
None

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

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.

16. Other Information

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



MATERIAL SAFETY DATA SHEET

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Issue date

Jan 29 2009 1:32PM

Revision

5

Replaces sheet dated

Jan 27 2009 3:13PM

Disclaimer

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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

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



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	CB325 Series
Use of the preparation	Inkjet printing
Version #	04
Revision date	01-27-2009
CAS #	Mixture
Product use	Inkjet printing
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 (Direct) 1-503-494-7199 HP Customer Care Line (Toll-free within the US) 1-800-474-6836 (Direct) 1-208-323-2551
Date prepared	Jan 27, 2009
MSDS number	332366

2. Hazards Identification

Emergency overview	Contact with skin and eyes may result in irritation.
Acute health effects	Any potential hazards are presumed to be due to exposure to the components.
Skin contact	<i>1,5-pentanediol</i> Contact with skin may result in irritation. <i>Aliphatic diol</i> Contact with skin may result in irritation. <i>Metal nitrate # 2</i> Contact with skin may result in irritation. <i>Substituted naphthalenesulfonate salt # 13</i> Contact with skin may result in irritation.
Eye contact	<i>1,5-pentanediol</i> Contact with eyes may result in irritation. <i>Aliphatic diol</i> Contact with eyes may result in irritation. <i>Metal nitrate # 2</i> Contact with eyes may result in irritation. <i>Substituted naphthalenesulfonate salt # 13</i> Contact with eyes may result in irritation.
Inhalation	<i>Aliphatic diol</i> Inhalation may result in respiratory irritation. <i>Metal nitrate # 2</i> Inhalation may result in respiratory irritation. <i>Substituted naphthalenesulfonate salt # 13</i> Inhalation may result in respiratory irritation.
Ingestion	<i>Metal nitrate # 2</i> Contains nitrate salts, may cause methemoglobinemia.



MATERIAL SAFETY DATA SHEET

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

Component/substance	CAS number	% by weight
Water	7732-18-5	< 80
1,5-pentanediol	111-29-5	< 20
Aliphatic diol	Proprietary	< 20
Metal nitrate # 2	Proprietary	< 10
Substituted naphthalenesulfonate salt # 13	Proprietary	< 10

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

Flash point and method

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

Hazardous combustion products

Refer to section 10.

Flammable properties

None known.

Extinguishing media

Suitable extinguishing media

CO₂, water, dry chemical, or foam

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.

Methods for containment

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.

Methods for cleaning up

Soak up with inert absorbent material.



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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.

8. Exposure Controls / Personal Protection

Exposure guidelines	Exposure limits have not been established for this product.
Personal protective equipment	
General	Use personal protective equipment to minimize exposure to skin and eye.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color	Yellow
Odor threshold	Not available.
Physical state	Not available.
Form	liquid
pH	7.2 - 7.4
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	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not determined
Vapor pressure	Not determined
Vapor density	> 1 (air = 1.0)
Specific gravity	1 - 1.2
Relative density	Not available.
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not determined
Decomposition temperature	Not available.
VOC	< 3 %
Viscosity	> 2 cp

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.



MATERIAL SAFETY DATA SHEET

Possibility of hazardous reactions Will not occur.

11. Toxicological Information

Toxicological information Refer to Section 3 for potential health effects and Section 4 for first aid measures.

12. Ecological Information

Aquatic toxicity LC50/96h/Fathead minnows =434 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 100%
Static acute toxicity (trout), survival (10 mg/L) = 100%

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

IATA

Proper shipping name Not applicable
Hazard class Not applicable
UN number None
Packing group N/A
Packaging exceptions None
Packaging non bulk None
Labels required None

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

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity
None

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

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.

16. Other Information

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



MATERIAL SAFETY DATA SHEET

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Issue date

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Revision

4

Replaces sheet dated

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Disclaimer

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Explanation of abbreviations

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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

Manufacturer information

Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, OR 97330-4239 US
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(Toll-free within the US) 1-800-457-4209



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	CB324 Series
Use of the preparation	Inkjet printing
Version #	04
Revision date	01-28-2009
CAS #	Mixture
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 (Direct) 1-503-494-7199 HP Customer Care Line (Toll-free within the US) 1-800-474-6836 (Direct) 1-208-323-2551
Date prepared	Jan 27, 2009
MSDS number	333350

2. Hazards Identification

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

Acute health effects

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

Skin contact

1,5-pentanediol
Contact with skin may result in irritation.
Aliphatic diol
Contact with skin may result in irritation.
Ethyl alkyl diol
Contact with skin may result in mild irritation.
Metal nitrate # 2
Contact with skin may result in irritation.
Pyridine azo dye
May cause sensitization by skin contact.

Eye contact

1,5-pentanediol
Contact with eyes may result in irritation.
Aliphatic diol
Contact with eyes may result in irritation.
Ethyl alkyl diol
Contact with eyes may result in mild irritation.
Metal nitrate # 2
Contact with eyes may result in irritation.
Pyridine azo dye
Contact with eyes may result in irritation.

Inhalation

Aliphatic diol
Inhalation may result in respiratory irritation.
Metal nitrate # 2
Inhalation may result in respiratory irritation.

Ingestion

Metal nitrate # 2
Contains nitrate salts, may cause methemoglobinemia.



MATERIAL SAFETY DATA SHEET

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

Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction.

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

Component/substance	CAS number	% by weight
Water	7732-18-5	< 80
Aliphatic diol	Proprietary	< 20
Metal nitrate # 2	Proprietary	< 10
Pyridine azo dye	Proprietary	< 10
1,5-pentanediol	111-29-5	< 2.5
2-Pyrrolidinone, 1-dodecyl-	2687-96-9	< 2.5
Ethyl alkyl diol	Proprietary	< 2.5
Polycyclic Sulfonic Acid, TMA salt	Proprietary	< 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

Flash point and method

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

Hazardous combustion products

Refer to section 10.

Flammable properties

None known.

Extinguishing media

Suitable extinguishing media

CO2, water, dry chemical, or foam

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.



MATERIAL SAFETY DATA SHEET

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.

8. Exposure Controls / Personal Protection

Exposure guidelines	Exposure limits have not been established for this product.
Personal protective equipment	
General	Use personal protective equipment to minimize exposure to skin and eye.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color	Magenta/Red/Purple
Odor threshold	Not available.
Physical state	Liquid.
pH	7.2 - 7.4
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	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not determined
Vapor pressure	Not determined
Vapor density	> 1 (air = 1.0)
Specific gravity	1 - 1.2
Relative density	Not available.
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not determined
Decomposition temperature	Not available.
VOC	< 3 %
Viscosity	> 2 cp

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.
Possibility of hazardous reactions	Will not occur.



MATERIAL SAFETY DATA SHEET

11. Toxicological Information

Sensitization Did not cause sensitization on laboratory animals. (OECD 429)

12. Ecological Information

Aquatic toxicity LC50/96h/Fathead minnows =< 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 100%

Persistence and degradability Not available.

13. Disposal Considerations

Disposal instructions 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>. Dispose of in compliance with federal, state, and local regulations.

14. Transport Information

IATA

Proper shipping name Not applicable
Hazard class Not applicable
UN number None
Packing group N/A
Packaging exceptions None
Packaging non bulk None
Labels required None

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

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity
None

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

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.

16. Other Information

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

NFPA ratings Health: 1
Flammability: 1
Instability: 0

Issue date Jan 27 2009 6:20PM



MATERIAL SAFETY DATA SHEET

Revision

4

Replaces sheet dated

Aug 8 2008 6:37PM

Disclaimer

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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

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



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation CB316Wseries

Product use Inkjet printing

Version # 09

Revision date 23-Oct-2012

CAS # Mixture

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
(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

2. Hazards Identification

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

Acute health effects

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

Skin contact

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

2-pyrrolidone
Contact with skin may result in irritation.

Eye contact

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

2-pyrrolidone
Contact with eyes may result in 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

Carcinogenicity

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk.

None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

3. Composition / Information on Ingredients

Components	CAS #	Percent
1,5-pentanediol	111-29-5	< 7.5

2-pyrrolidone	616-45-5	< 7.5
Carbon black	1333-86-4	< 5
Water	7732-18-5	> 75

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).

Carbon black is present only in a bound form in this preparation.

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.

General advice No additional information

5. Fire Fighting Measures

Flammable properties None known.

Extinguishing media

Suitable extinguishing media CO2, 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.

Methods for containment 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.

Methods for cleaning up Soak up with inert absorbent material.

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.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.0000 mg/m3	Inhalable fraction.

U.S. - Tennessee**Components****Type****Value**

Carbon black (1333-86-4)

TWA

3.5000 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.

9. Physical & Chemical Properties**Appearance**

Not available.

Color

Black.

Odor

Not available.

Odor threshold

Not available.

Physical state

Liquid

Form

Not available.

pH

7

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 - 1.2

Relative density

Not available.

Solubility (water)

Soluble in water

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

2 cp

VOC

< 179 g/L

Other information

For other VOC regulatory data/information see section 15.

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.

Possibility of hazardous reactions

Will not occur.

11. Toxicological Information**Carcinogenicity**

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint.

ACGIH Carcinogens

Carbon black (CAS 1333-86-4)

A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (CAS 1333-86-4)

Inadequate data.

Serious eye damage/eye irritation Not available.**Symptoms and target organs****Target Organs (NIOSH)**

Carbon black (CAS 1333-86-4)

Eyes
Respiratory system**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** Do not allow this material to drain into sewers/water supplies.
Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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 DOT, IATA, ADR, IMDG, or RID.**DOT**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

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.**DEA Exempt Chemical Mixtures Code Number**

Not regulated.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

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 - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon black (CAS 1333-86-4) Listed: February 21, 2003 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

Carbon black (CAS 1333-86-4) Listed.

US. Massachusetts RTK - Substance List

2-pyrrolidone (CAS 616-45-5)

Carbon black (CAS 1333-86-4)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

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

Carbon black (CAS 1333-86-4) Listed.

US. Rhode Island RTK

Carbon black (CAS 1333-86-4)

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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

Other information

Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments).

Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments).
VOC content (less water, less exempt compounds) = < 781 g/L (U.S. requirement, not for emissions).

VOC data based on formulation (Organic compounds minus solids)

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

23-Oct-2012

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

Manufacturer information

Product and Company Identification: Alternate Trade Names
9. Physical & Chemical Properties: Other information
15. Regulatory Information: Other information

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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