



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Material name	CC644Series
Use of the preparation	Inkjet printing
Version #	03
Revision date	20-Jun-2008
Manufacturer information	Hewlett-Packard Company 1000 NE Circle Boulevard Corvallis, OR 97330-4239 US
Hewlett-Packard health effects line	
(Toll-free within the US)	1-800-457-4209
(Direct)	1-503-494-7199
General information telephone number	
HP Customer Care Line	1-800-474-6836
(Toll-free)	1-800-474-6836
(Direct)	1-208-323-2551
Date prepared	Jun 19, 2008
MSDS number	294310

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-(2-hydroxyethyl)-2-pyrrolidone</i> Contact with skin may result in irritation. <i>1,5-pentanediol</i> Contact with skin may result in irritation. <i>Aliphatic diol</i> Contact with skin may result in irritation. <i>Ethyl alkyl diol</i> Contact with skin may result in mild irritation. <i>Metal nitrate # 2</i> Contact with skin may result in irritation. <i>Pyridine azo dye</i> May cause sensitization by skin contact. <i>Substituted naphthalenesulfonate salt # 13</i> Contact with skin may result in irritation.



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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 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.

Substituted naphthalenesulfonate salt # 13

Contact with eyes may result in irritation.

Substituted phthalocyanine salt #5

Risk of serious damage to eyes.

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.

Substituted naphthalenesulfonate salt # 13

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.



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3. Composition / Information on Ingredients

Component/Substance	CAS Number	% By Weight
Cyan ink		
Water	7732-18-5	> 60
Ethyl alkyl diol	Proprietary	< 10
1,5-pentanediol	111-29-5	< 7.5
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 5
Substituted phthalocyanine salt #5	Proprietary	< 5
Metal nitrate # 2	Proprietary	< 5
Aliphatic diol	629-11-8	< 5
Phenylenediamine derivative	Proprietary	< 2.5
Yellow ink		
Water	7732-18-5	> 60
1,5-pentanediol	111-29-5	< 15
Aliphatic diol	Proprietary	< 15
Substituted naphthalenesulfonate salt # 13	Proprietary	< 7.5
Metal nitrate # 2	Proprietary	< 5
Magenta ink		
Water	7732-18-5	> 70
Aliphatic diol	Proprietary	< 15
1,5-pentanediol	111-29-5	< 7.5
Pyridine azo dye	Proprietary	< 5
Nitric Acid, Magnesium Salt, Hexahydrate	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

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.



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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, magenta, yellow

Odor threshold

Not available

Physical state

Liquid.

Form

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 in water

Soluble in water

Partition coefficient (n-octanol/water)

Not available



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Auto-ignition temperature	Not available
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.

11. Toxicological Information

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

Aquatic toxicity

Cyan ink

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%

Yellow ink

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
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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. Transportation Information

Department of Transportation (DOT) Requirements

Not regulated as hazardous goods.

IATA

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

15. Regulatory Information

US federal regulations	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)

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.

State regulations

U.S. - Pennsylvania - RTK (Right to Know) List
Metal nitrate # 2 Proprietary [present]

U.S. - Pennsylvania - RTK (Right to Know) List
Nitric Acid, Magnesium Salt, Proprietary [present]
Hexahydrate

U.S. - New Jersey - Right to Know Hazardous Substance List
Metal nitrate # 2 Proprietary sn 1136

U.S. - New Jersey - Right to Know Hazardous Substance List
Nitric Acid, Magnesium Salt, Proprietary sn 1136
Hexahydrate

16. Other Information

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

NFPA ratings
Health: 1
Flammability: 1
Instability: 0

Issue date
Jun 19 2008 8:07PM

Revision
3

Replaces sheet dated
Jun 19 2008 5:05PM

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.



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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