1. Product and Company Identification

Identification of the preparation

CD984Series

Product use

Inkjet printing

Version #

03

Revision date

15-Oct-2012

Company identification

Hewlett-Packard Company

3000 Hanover Street

Palo Alto, CA 94304-1185

United States

Telephone 650-857-1501

Hewlett-Packard health effects line

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(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

Acute health effects

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

Skin contact

Ethylene Glycol, Monobutyl Ether Acetate

Contact with skin may result in irritation. Harmful if absorbed through the skin.

Eye contact

Ethylene Glycol, Monobutyl Ether Acetate

Contact with eyes may result in irritation.

Gamma Butyrolactone

Irritating to eyes.

Inhalation

Ethylene Glycol, Monobutyl Ether Acetate

Inhalation may result in respiratory irritation.

Gamma Butyrolactone

Inhalation may result in respiratory irritation.

Ingestion

Ethylene Glycol, Monobutyl Ether Acetate

Swallowing large amounts may cause digestive discomfort. Harmful if swallowed.

Gamma Butyrolactone

Harmful if swallowed. May depress the central nervous system.

Potential health effects

Routes of exposure

Eye contact. Skin contact. Inhalation.

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol, Monobutyl Ether Acetate</td>
<td>112-07-2</td>
<td>90 - 95</td>
</tr>
<tr>
<td>Gamma Butyrolactone</td>
<td>96-48-0</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

Composition comments

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 eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.

**Skin contact**
Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

**Inhalation**
Remove to fresh air. If symptoms persist, get medical attention.

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

**General advice**
No additional information

5. Fire Fighting Measures

**Flammable properties**
Combustible liquid. Many liquids are lighter than water. Vapors may travel to a source of ignition and flash back.

**Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Dry chemical, CO2, water spray or regular foam.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>high volume water jet</td>
</tr>
</tbody>
</table>

**Specific methods**
Standard procedure for chemical fires. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire and/or explosion do not breathe fumes.

**Hazardous combustion products**
Refer to section 10.

6. Accidental Release Measures

**Personal precautions**
Remove all sources of ignition. 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**
Use spark-proof tools and explosion-proof equipment. Soak up with inert absorbent material. Use personal protective equipment to minimize exposure to skin and eye. Dispose of in compliance with federal, state, and local regulations.

7. Handling and Storage

**Handling**
Use spark-proof tools and explosion-proof equipment. Keep this product from heat, sparks, or open flame. Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Keep away from sources of ignition - No smoking.

**Storage**
Keep away from heat, sparks and flame. Keep away from oxidizers. Store at ambient temperature and atmospheric pressure. Keep away from excessive heat or cold.

8. Exposure Controls / Personal Protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>ACGIH Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)</td>
<td>TWA</td>
<td>20.0000 ppm</td>
</tr>
</tbody>
</table>

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

**Engineering controls**
Use in a well ventilated area.

**Personal protective equipment**

<table>
<thead>
<tr>
<th>General hygiene considerations</th>
<th>Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Use personal protective equipment to minimize exposure to skin and eye.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Use personal protective equipment to minimize exposure to skin and eye.</td>
</tr>
</tbody>
</table>

9. Physical & Chemical Properties

**Appearance**
Not available.

**Color**
Not available.

**Odor**
Not available.

**Odor threshold**
Not available.

**Physical state**
Liquid
Form: Not available.

pH: Not determined

Melting point: Not available.

Freezing point: Not available.

Boiling point: 375.8 °F (191 °C)

Flash point: 181.4 °F (83 °C) Cleveland Open Cup

Evaporation rate: Not determined

Flammability limits in air, upper, % by volume: Not available.

Flammability limits in air, lower, % by volume: Not available.

Vapor pressure: 0.04 hPa @ 20°C

Vapor density: Not available.

Specific gravity: 0.97

Relative density: Not available.

Solubility (water): 1.1 %

Auto-ignition temperature: 644 °F (340 °C)

Decomposition temperature: Not available.

Viscosity: Not determined

VOC: < 970 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: Strong oxidizing agents. This product may react with strong acids. This product may react with strong alkalies.

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

ACGIH Carcinogens

Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2) A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Gamma Butyrolactone (CAS 96-48-0) 3 Not classifiable as to carcinogenicity to humans.

IARC Monographs: Evidence of carcinogenicity in humans

Gamma Butyrolactone (CAS 96-48-0) Inadequate data.

Serious eye damage/eye irritation: Not available.

Symptoms and target organs

Target Organs (NIOSH)

Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2) Blood

Central Nervous System

Eyes

Hemato system

Kidneys

Liver

Lymphoid system

Respiratory system

Skin

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  This product has not been tested for ecological effects.
Persistence and degradability  Not available.

13. Disposal Considerations

Disposal instructions  Dispose of in compliance with federal, state, and local regulations. Do not allow this material to drain into sewers/water supplies.

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 EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA. US TSCA 12(b): Does not contain listed chemicals.

DEA Exempt Chemical Mixtures Code Number
Gamma Butyrolactone (CAS 96-48-0)  2011

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Gamma Butyrolactone (CAS 96-48-0)  70 %WV

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  Yes
hazardous chemical

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 - New Jersey RTK - Substances: Listed substance
Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2) Listed.
US. Massachusetts RTK - Substance List
Not regulated.
US. New Jersey Worker and Community Right-to-Know Act
Not regulated.
US. Pennsylvania RTK - Hazardous Substances
Not regulated.
US. Rhode Island RTK
Not regulated.

Other information
All ingredients are listed on EINECS and/or ELINCS or exempt. VOC content (less water, less exempt compounds) = < 970 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: 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
15-Oct-2012

This data sheet contains
changes from the previous version in section(s):
9. Physical & Chemical Properties: Other information
14. Transport Information: Further 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