



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation CD991Series

Product use Inkjet printing

Version # 04

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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.

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
Ethylene Glycol, Monobutyl Ether Acetate	112-07-2	90 - 95
Gamma Butyrolactone	96-48-0	5 - 10

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	
Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	high volume water jet
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

ACGIH

Components	Type	Value
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	TWA	20.0000 ppm

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. Avoid contact with skin, eyes and clothing. Use personal protective equipment to minimize exposure to skin and eye.
General	Use personal protective equipment to minimize exposure to skin and eye.

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 All ingredients are listed or exempt 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

16-Oct-2012

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

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

Manufacturer 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