



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name CC663A
Use of the preparation Inkjet printing
Version # 01
Revision date 01-07-2009
Company identification Hewlett-Packard Company
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Date prepared Jan 07, 2009
MSDS number 244259

2. Hazards Identification

Emergency overview Combustible liquid. Strong, offensive odor. Inhalation may result in respiratory irritation. 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 *Ethylene Glycol, Monobutyl Ether Acetate*
Contact with skin may result in irritation. Harmful if absorbed through the skin.

Eye contact *4-butyrolactone*
Irritating to eyes.
Ethylene Glycol, Monobutyl Ether Acetate
Contact with eyes may result in irritation.
Propylene Carbonate
Contact with eyes may result in irritation.

Inhalation *4-butyrolactone*
Inhalation may result in respiratory irritation.
Ethylene Glycol, Monobutyl Ether Acetate
Inhalation may result in respiratory irritation.

Ingestion *4-butyrolactone*
Harmful if swallowed. May depress the central nervous system.
Ethylene Glycol, Monobutyl Ether Acetate
Swallowing large amounts may cause digestive discomfort. Harmful if swallowed.

Potential health effects
Routes of exposure Eye contact. Skin contact. Inhalation. Complete toxicity data are not available for this specific formulation
Chronic health effects Carbon Black: Chronic inhalation studies performed with fine dust particles resulted in lung tumors in animals. The IARC classification was based upon these results. IARC also concluded "there is inadequate evidence in humans for the carcinogenicity of carbon black." Inhalation of fine dust particles is not expected to occur during normal conditions of use of this ink.



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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

Component/substance	CAS number	% by weight
Ethylene Glycol, Monobutyl Ether Acetate	112-07-2	> 75
4-butyrolactone	96-48-0	< 10
Carbon black	1333-86-4	< 10
Propylene Carbonate	108-32-7	< 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. In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 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	Move person to fresh air immediately. If symptoms persist, get immediate medical attention.
Ingestion	If material is ingested, immediately contact a physician or poison control center.

5. Fire Fighting Measures

Flash point and method	179.6 °F (82 °C); Cleveland Open Cup
Hazardous combustion products	Refer to section 10.
Flammable properties	Combustible liquid. Many liquids are lighter than water. Vapors may travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Extinguishing media	
Suitable extinguishing media	Dry chemical, CO ₂ , water spray or regular foam. Avoid using a direct stream of water.
Unsuitable extinguishing media	high volume water jet
Unusual fire and explosion hazard	Combustible liquid. Many liquids are lighter than water. Vapors may travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Special firefighting procedures	Do not direct a solid stream of water or foam into hot, burning pools; this may result in frothing and increase fire intensity. Standard procedure for chemical fires. In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental Release Measures

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



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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. Keep away from sources of ignition - No smoking. Use with adequate ventilation.

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

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Ethylene Glycol, Monobutyl Ether Acetate	112-07-2	20 ppm	Not established	Not established
Carbon black	1333-86-4	3.5 mg/m ³	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Carbon black	1333-86-4	3.5 mg/m ³ TWA	3.5 mg/m ³ Not established	Not established

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. Avoid contact with skin, eyes and clothing.

9. Physical & Chemical Properties

Color	Black
Odor threshold	Not available.
Physical state	Liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	363.2 °F (184 °C)
Flash point	179.6 °F (82 °C); Cleveland Open Cup
Evaporation rate	not determined
Flammability	Not available.
Flammability limits in air, upper, % by volume	1.7 % v/v
Flammability limits in air, lower, % by volume	8.4 % v/v
Vapor pressure	0.4 hPa
Vapor density	Not available.
Specific gravity	0.97 g/mL
Relative density	Not available.



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Solubility (water)	Not miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	88.6 % w/w

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 alkalis.
Hazardous decomposition products	Oxides of carbon/nitrogen/sulfur, and water. Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.
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. Carbon black is present only in a bound form in this preparation.
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IARC Monographs on Occupational Exposures to Chemical Agents: Evidence of carcinogenicity in humans

4-butyrolactone (96-48-0)	Inadequate data.
Carbon black (1333-86-4)	Inadequate data.

US ACGIH Threshold Limit Values: A3 carcinogen

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Group A3 Confirmed animal carcinogen with unknown relevance to humans.
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US ACGIH Threshold Limit Values: A4 carcinogen

Carbon black (1333-86-4)	Group A4 Not classifiable as a human carcinogen.
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Symptoms and target organs

Target Organs (NIOSH)

Carbon black (1333-86-4)	Eyes
Carbon black (1333-86-4)	Respiratory system
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Blood
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Central Nervous System
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Eyes
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Hemato system
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Kidneys
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Liver
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Lymphoid system
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Respiratory system
Ethylene Glycol, Monobutyl Ether Acetate (112-07-2)	Skin

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.
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14. Transport Information

IATA

Not regulated as dangerous goods.



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General

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

15. Regulatory Information

US federal regulations All ingredients are listed or exempt US TSCA 12(b): Does not contain listed chemicals.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2) 1.0 % N230

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2) N230 Listed.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

International regulations All chemical substances in this product are notified or exempt from notification under chemical substance notification laws in the following countries: USA, Canada, China, European Union, Japan, South Korea, Philippines, New Zealand, Switzerland.

State regulations

US - New Jersey Community RTK (EHS Survey): Listed substance

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2) Substance no. 3138

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Carbon black (1333-86-4) Listed.

Ethylene Glycol, Monobutyl Ether Acetate (112-07-2) Listed.

16. Other Information

HMIS® ratings Health: 1
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 2
Instability: 0

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Revision 1

Replaces sheet dated Dec 27 2008 9:37PM

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

Manufacturer information

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