



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Material name 51604A Original
Use of the preparation Inkjet printing
Version # 03
Revision date 27-Mar-2008
CAS # Mixture
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
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General information telephone number
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Date prepared Mar 26, 2008

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
Food Black 2 acid salt # 3
This product may cause an allergic skin reaction.
Triethylene glycol
Contact with skin may result in irritation.

Eye contact
Triethylene glycol
Contact with eyes may cause irritation.

Ingestion
Ethylene glycol
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.
Food Black 2 acid salt # 3
Toxic if swallowed.

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
Water	7732-18-5	> 40
Ethylene glycol	107-21-1	< 40
Triethylene glycol	112-27-6	< 15
Food Black 2 acid salt # 3	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. Get medical attention if irritation develops or persists.
Inhalation	Remove 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	Dry chemical, CO ₂ , water spray or regular 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.
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.
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Storage

Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure Controls/Personal Protection**Exposure limits****ACGIH**

Components	CAS #	TWA	STEL	Ceiling
Ethylene glycol	107-21-1	Not established	Not established	100 mg/m3

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.

Eye / face protection

Not required under intended use.

Skin protection

Protected gloves not required under intended use.

Respiratory protection

For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color	Black
Odor threshold	Not available
Physical state	Liquid.
pH	7.7 - 8.3
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
Auto-ignition temperature	Not available
Decomposition temperature	Not available
VOC	< 3 %



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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

Oral toxicity	LD50/oral/rat >2000 mg/kg (OECD 423) Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
Sensitization	Non-sensitizer in guinea pig (OECD 406) (OECD 406)
Symptoms and target organs	
NIOSH - Pocket Guide - Target Organs	
Ethylene glycol	107-21-1 respiratory system, skin, eyes, CNS

12. Ecological Information

Aquatic toxicity	LC50/96h/Fathead minnows =>750 mg/L
Persistence and degradability	Not available

13. Disposal Considerations

Disposal instructions	Dispose of in compliance with federal, state, and local regulations.
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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.
U.S. - CERCLA/SARA - Section 313 - Emission Reporting	
Ethylene glycol	107-21-1 1.0 % de minimis concentration
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities	
Ethylene glycol	107-21-1 5000 lb final RQ; 2270 kg final RQ
CERCLA (Superfund) reportable quantity	
None	



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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
Ethylene glycol 107-21-1 Environmental hazard
U.S. - Pennsylvania - RTK (Right to Know) List
Triethylene glycol 112-27-6 Present
U.S. - New Jersey - Right to Know Hazardous Substance List
Ethylene glycol 107-21-1 sn 0878
U.S. - New Jersey - Right to Know Hazardous Substance List
Triethylene glycol 112-27-6 sn 2079

16. Other Information

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

NFPA ratings
Health: 1
Flammability: 1
Instability: 0

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Revision 3

Replaces sheet dated Jan 9 2006 10:41PM

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.

MSDS sections updated
3. Hazards Identification: Routes of exposure
8. Exposure Controls/Personal Protection: Respiratory
11. Toxicological Information: Sensitization



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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