



Material Safety Data Sheet

1. Product and Company Identification

Material name	51644M
Use of the preparation	Inkjet printing
Version #	04
Revision date	17-May-2009
CAS #	Mixture
Product use	Inkjet printing
Company identification	Hewlett-Packard Company 3000 Hanover Street Palo Alto, CA 94304-1185 United States Telephone 650-857-1501 Hewlett-Packard health effects line (Toll-free within the US) 1-800-457-4209 (Direct) 1-503-494-7199 HP Customer Care Line (Toll-free within the US) 1-800-474-6836 (Direct) 1-208-323-2551 Email: hpcustomerinquiries@hp.com
Date prepared	May 16, 2009

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

1,5-pentanediol
Contact with skin may result in irritation.

2-pyrrolidone
Contact with skin may result in irritation.

Alkyldiol ethoxylate
Contact with skin may result in severe irritation.

Ethyl alkyldiol
Contact with skin may result in mild irritation.

Metal nitrate # 2
Contact with skin may result in irritation.

Substituted naphthalenesulfonate salt #10
May cause sensitization by skin contact.

Eye contact

1,5-pentanediol
Contact with eyes may result in irritation.

2-pyrrolidone
Contact with eyes may result in irritation.

Alkyldiol ethoxylate
Contact can cause moderate to severe irritation and possible injury to the eyes.

Ethyl alkyldiol
Contact with eyes may result in mild irritation.

Metal nitrate # 2
Contact with eyes may result in irritation.

Substituted naphthalenesulfonate salt #10
Risk of serious damage to eyes.



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Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.
Metal nitrate # 2
Inhalation may result in respiratory irritation.

Ingestion

2-pyrrolidone
Ingestion may result in nausea, vomiting and diarrhea.
Alkyldiol ethoxylate
Ingestion may cause irritation of mouth, throat, 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.

3. Composition / Information on Ingredients

Component/substance	CAS number	% by weight
Water	7732-18-5	< 70
1,5-pentanediol	111-29-5	< 10
2-pyrrolidone	616-45-5	< 7.5
Ethyl alkyldiol	Proprietary	< 7.5
Metal nitrate # 2	Proprietary	< 7.5
Substituted naphthalenesulfonate salt #10	Proprietary	< 2.5

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, CO₂, water spray or regular foam.

Unsuitable extinguishing media

None known.



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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.
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.
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	Magenta
Odor threshold	Not available.
Physical state	Liquid.
pH	6 - 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 (water)	Soluble in water



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Partition coefficient (n-octanol/water)	Not available.
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	Complete toxicity data are not available for this specific formulation
Eye irritation	Mild irritant in rabbit (OECD 405)
Sensitization	Non-sensitizer in guinea pig (OECD 406) (OECD 406)

12. Ecological Information

Aquatic toxicity	LC50/96h/Fathead minnows =512 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.

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. Transport Information

IATA

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

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

15. Regulatory Information

US federal regulations US TSCA 12(b): Does not contain listed chemicals.

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

Metal nitrate # 2 (Proprietary) 1.0 % N511

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

Metal nitrate # 2 (Proprietary) N511 Listed.

Material name 51644M

Creation date Apr 30, 2003

Version number 4

MSDS US

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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

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

Metal nitrate # 2 (Proprietary) Substance no. 3722

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

Metal nitrate # 2 (Proprietary) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (616-45-5) Listed.

Metal nitrate # 2 (Proprietary) Listed.

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 4

Replaces sheet dated May 15 2009 8:35PM

Manufacturer information
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Other information This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

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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