Material Safety Data Sheet

1. Product and Company Identification

Material name C9441 Series

Use of the preparation Inkjet printing

Version # 02

Revision date 01-Dec-2009

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MSDS number 593825

2. Hazards Identification

Emergency overview Contact with skin and eyes may result in irritation. Ingestion may result in nausea, vomiting and diarrhea. May cause sensitization of susceptible persons.

Acute health effects

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

Skin contact

2-pyrrolidone
Contact with skin may result in irritation.

Alkyldiol
Contact with skin may result in irritation.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.

Alkyldiol
Contact with eyes may result in irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Alkyldiol
Inhalation may result in respiratory irritation.

Ingestion

2-pyrrolidone
Ingestion may result in nausea, vomiting and diarrhea.

Diethylene glycol
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

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
2-pyrrolidone	616-45-5	< 7.5
Diethylene glycol	111-46-6	< 7.5
Alkyldiol	Proprietary	< 5
Triethanolamine	102-71-6	< 1

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. If irritation persists get medical attention.

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

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

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 Combustion generates toxic fumes of fluoride/fluorine compounds; aldehydes; ketones; acetylene.

Extinguishing media

Suitable extinguishing media CO_2, water, dry chemical, or foam

Unsuitable extinguishing media None known.

Unusual fire and explosion hazard Combustion generates toxic fumes of fluoride/fluorine compounds; aldehydes; ketones; acetylene.

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.

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. Remove and wash contaminated clothing before re-use.

Storage Keep out of the reach of children. Keep away from excessive heat or cold. Store away from strong oxidizers.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
Triethanolamine (102-71-6)	TWA	5 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 hygeine considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color Magenta

Odor threshold Not available.

Physical state Not available.

pH 9.4

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 - 1.1

Relative density Not available.

Solubility (water) Soluble in water

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not determined

Decomposition temperature Not available.

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. aldehydes, ketones, hydrogen fluoride, fluorinated hydrocarbons

Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Carcinogenicity

IARC Monographs: Evidence of carcinogenicity in humans

Triethanolamine (102-71-6)	Inadequate data.

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. 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.

14. Transport Information

IATA

Proper shipping name	Not applicable
Hazard class	Not applicable
UN number	None
Packing group	N/A
Packaging exceptions	None
General	Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.

15. Regulatory Information

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

CERCLA (Superfund) reportable quantity

None

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
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 - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (616-45-5)	Listed.
Diethylene glycol (111-46-6)	Listed.
Triethanolamine (102-71-6)	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	2
Replaces sheet dated	Nov 20 2009 11:21PM
Manufacturer information	Hewlett-Packard Company 1000 NE Circle Boulevard Corvallis, OR 97330-4239 US (Direct) 1-503-494-7199 (Toll-free within the US) 1-800-457-4209
Other information	This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).
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	8. Exposure Controls / Personal Protection: Respiratory protection 8. Exposure Controls / Personal Protection: Eye / face protection 8. Exposure Controls / Personal Protection: Skin protection 14. Transport Information: General

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