



Material Safety Data Sheet

1. Product and Company Identification

Material name	C9438 Series
Use of the preparation	Inkjet printing
Version #	02
Revision date	01-Dec-2009
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: hpcustomer.inquiries@hp.com
Date prepared	Nov 30, 2009
MSDS number	604901

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	<i>2-pyrrolidone</i> Contact with skin may result in irritation. <i>Alkyldiol</i> Contact with skin may result in irritation.
Eye contact	<i>2-pyrrolidone</i> Contact with eyes may result in irritation. <i>Alkyldiol</i> Contact with eyes may result in irritation.
Inhalation	<i>2-pyrrolidone</i> Inhalation may result in respiratory irritation. <i>Alkyldiol</i> Inhalation may result in respiratory irritation.
Ingestion	<i>2-pyrrolidone</i> Ingestion may result in nausea, vomiting and diarrhea. <i>Diethylene glycol</i> 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



Material Safety Data Sheet

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.

Carcinogenicity

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).
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
Water	7732-18-5	< 80
2-pyrrolidone	616-45-5	< 7.5
Alkyldiol	Proprietary	< 5
Diethylene glycol	111-46-6	< 5
Triethanolamine	102-71-6	< 1.5
Carbon black	1333-86-4	< 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 fluorides/fluorinated compounds; aldehydes.

Extinguishing media**Suitable extinguishing media**

CO₂, water, dry chemical, or foam

Unsuitable extinguishing media

None known.

Unusual fire and explosion hazard

Combustion generates toxic fumes of fluorides/fluorinated compounds; aldehydes.

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.



Material Safety Data Sheet

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
Carbon black (1333-86-4)	TWA	3.5 mg/m ³
Triethanolamine (102-71-6)	TWA	5 mg/m ³

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	Gray
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=1.00)
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.



Material Safety Data Sheet

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. hydrogen fluoride, fluorinated hydrocarbons
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Carcinogenicity

IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (1333-86-4) Inadequate data.

Triethanolamine (102-71-6) Inadequate data.

US ACGIH Threshold Limit Values: A4 carcinogen

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

Symptoms and target organs

Target Organs (NIOSH)

Carbon black (1333-86-4) Eyes

Carbon black (1333-86-4) Respiratory system

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



invent

Material Safety Data Sheet

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.
Carbon black (1333-86-4)	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

Issue date Nov 30 2009 8:13PM

Revision 2

Replaces sheet dated Nov 28 2006 12:49PM

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 Hazards Identification: Carcinogenicity
8. Exposure Controls / Personal Protection: Respiratory protection
8. Exposure Controls / Personal Protection: Eye / face protection
8. Exposure Controls / Personal Protection: Skin protection
12. Ecological Information: Aquatic toxicity
14. Transport Information: General



Material Safety Data Sheet

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