MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Identification of the preparation C9465A

Use of the preparation Inkjet printing

Manufacturer information
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Date prepared Apr 17, 2007

MSDS number 227294

2. Composition / Information on Ingredients

Component/substance	CAS number	% by weight
Water	7732-18-5	> 70
2-pyrrolidone	616-45-5	< 7.5
Alkyldiol	Proprietary	< 5
Diethylene glycol	111-46-6	< 5
Carbon black	1333-86-4	< 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).

3. 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.

Triethanolamine
Contact with skin may result in irritation. May cause sensitization of susceptible persons by skin contact.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.

Alkyldiol
Contact with eyes may result in irritation.

Triethanolamine
Contact with eyes may result in mild irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Alkyldiol
Inhalation may result in respiratory irritation.

Triethanolamine
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

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.

4. First Aid Measures

First aid procedures

Skin

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

Eye

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.

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

Auto ignition temperature

Not determined

Hazardous combustion products	Refer to section 10.
Extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
Unusual fire and explosion hazard	Combustion generates toxic fumes of fluoride/fluorine compounds; aldejydes; ketones; potential for 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.
Procedures if material is released or spilled	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

Exposure limit values Exposure limits have not been established for this product.

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Carbon black	1333-86-4	3.5 mg/m3 TWA

OSHA - Final PELs - Time Weighted Averages (TWAs)

Carbon black	1333-86-4	3.5 mg/m3 TWA

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Triethanolamine	102-71-6	5 mg/m3 TWA

Personal protective equipment

General	Use personal protective equipment to minimize exposure to skin and eye.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Exposure guidelines	Use in a well ventilated area.

9. Physical & Chemical Properties

pH	9.3
Vapor pressure	Not determined
Boiling point	Not determined
Solubility	Soluble in water
Specific gravity	1 - 1.1
Flash point	200 °F (93.3 °C)
Vapor density	> 1 (air=1.0)
Evaporation rate	Not determined
Flammability	Not determined

Oxidizing properties	Not determined
Color	black

10. Chemical Stability & Reactivity Information

Stability	Stable under recommended storage conditions.
Hazardous polymerization	Will not occur.
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
Incompatibility	Incompatible with strong bases and oxidizing agents.

11. Toxicological Information

This ink formulation has not been tested for toxicological effects.
Refer to Section 3 for potential health effects and Section 4 for first aid measures.

Carcinogenicity

OSHA - Hazard Communication Carcinogens

Carbon black	1333-86-4	Present

Symptoms and target organs

NIOSH - Pocket Guide - Target Organs

Carbon black	1333-86-4	respiratory system, eyes (lymphatic cancer in presence of PAHs)

12. ECOLOGICAL INFORMATION

Aquatic toxicity	LC50/96h/Fathead minnows => 750 mg/L

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. Transportation Information

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

IATA

Proper shipping name	Not applicable
Hazard class	Not applicable
Packaging exceptions	None
Identification number (UN)	None
Packing group	N/A

15. Regulatory Information

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

HMIS ratings	Health:	1
	Flammability:	2
	Physical hazard:	0
NFPA ratings	Health:	1
	Flammability:	2
	Instability:	0

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

16. Other Information

Other information	This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).
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Revision	1
Replaces sheet dated	Aug 28 2006 7:01AM
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: Carcinogenicity

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