



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Identification of the preparation** C9351 Series

**Selectability number** 21

**Use of the preparation** Inkjet printing

**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

**(Direct)** 1-503-494-7199

**General information telephone number**

**HP Customer Care Line** 1-800-474-6836

**(Toll-free)** 1-800-474-6836

**(Direct)** 1-208-323-2551

**Date prepared** Jan 26, 2007

**MSDS number** 146849

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight
Water	7732-18-5	> 70
2-pyrrolidone	616-45-5	< 15
Carbon black	1333-86-4	< 5
Isopropyl Alcohol	67-63-0	< 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).

## 3. HAZARDS IDENTIFICATION

**Emergency overview** Contact with skin and eyes may result in irritation.  
*Isopropyl Alcohol*  
Contact with skin and eyes may result in irritation. Inhalation may cause drowsiness or dizziness.

**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.

**Eye contact**  
*2-pyrrolidone*  
Contact with eyes may result in irritation.  
*Isopropyl Alcohol*  
Contact with eyes may result in severe irritation.

**Inhalation**  
*2-pyrrolidone*  
Inhalation may result in respiratory irritation.  
*Isopropyl Alcohol*  
Inhalation may cause drowsiness or dizziness.



# MATERIAL SAFETY DATA SHEET

## Ingestion

*2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

## 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

*Isopropyl Alcohol*

Potential routes of exposure under normal use conditions are skin, eye contact and inhalation.

### 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.

## Other information

*Isopropyl Alcohol*

This product is classified for health and physicochemical effects according to EU Directive 1999/45/EC with R11, R36 and R67.

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## 4. FIRST AID MEASURES

### First aid procedures

#### Skin

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

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

#### Ingestion

If ingestion of a large amount does occur, seek medical attention. If ingestion of a large amount does occur, seek medical attention.

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## 5. FIRE FIGHTING MEASURES

### Flash point and method

131 - 136 °F; Pensky-Martens Closed Cup; No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).

### Hazardous combustion products

Refer to section 10. Carbon monoxide and carbon dioxide.

### Extinguishing media

CO<sub>2</sub>, water, dry chemical, or foam Dry chemical, CO<sub>2</sub>, water spray or regular foam.

### Unsuitable extinguishing media

None known. None known.

### Unusual fire and explosion hazard

None known. Flammable Liquid and Will burn if involved in a fire and Vaporizes easily at normal temperatures and Vapors may travel to a source of ignition and flash back.

### Special firefighting procedures

None established.



# MATERIAL SAFETY DATA SHEET

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear appropriate personal protective equipment. Wear appropriate personal protective equipment and Ensure adequate ventilation and Remove all sources of ignition.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Do not let product enter drains and Do not flush into surface water or sanitary sewer system.
<b>Procedures if material is released or spilled</b>	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. Soak up with inert absorbent material, Clean remainder with a damp cloth or vacuum cleaner, Dispose of in compliance with federal, state, and local regulations, See also section 13 Disposal considerations.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition and Avoid contact with skin and eyes Use this product with adequate ventilation.
<b>Storage</b>	Keep out of the reach of children. Keep away from excessive heat or cold. Keep away from excessive heat, sparks, and open flames.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure limit values</b>	Exposure limits have not been established for this product.	
OSHA - Final PELs - Time Weighted Averages (TWAs)		
Isopropyl Alcohol	67-63-0	400 ppm TWA; 980 mg/m3 TWA
ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)		
Isopropyl Alcohol	67-63-0	200 ppm 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)		
Carbon black	1333-86-4	3.5 mg/m3 TWA
<b>Personal protective equipment</b>		
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye. Use personal protective equipment to minimize exposure to skin and eye.	
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice. Handle in accordance with good industrial hygiene and safety practice.	
<b>Exposure guidelines</b>	Use in a well ventilated area. Use in a well ventilated area.	

## 9. PHYSICAL & CHEMICAL PROPERTIES

<b>pH</b>	7.8 - 8.4
<b>Vapor pressure</b>	Not determined
<b>Boiling point</b>	> 200 °F
<b>Solubility</b>	Soluble in water
<b>Specific gravity</b>	1 - 1.2 g/mL
<b>VOC content</b>	< 3 %
<b>Flash point</b>	131 - 136 °F
<b>Viscosity</b>	> 2 cp
<b>Vapor density</b>	> 1 (air = 1.0)
<b>Evaporation rate</b>	Not determined
<b>Appearance</b>	Clear liquid
<b>Oxidizing properties</b>	Not determined No information available.
<b>Color</b>	Black



# MATERIAL SAFETY DATA SHEET

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

<b>Stability</b>	Stable under recommended storage conditions. Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Hazardous polymerization</b>	Will not occur. Will not occur.
<b>Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Carbon monoxide and carbon dioxide.
<b>Incompatibility</b>	Incompatible with strong bases and oxidizing agents. Incompatible with strong acids and bases.

## 11. TOXICOLOGICAL INFORMATION

Complete toxicity data are not available for this specific formulation. Refer to Section 3 for potential health effects and Section 4 for first aid measures. Complete toxicity data are not available for this specific formulation Refer to Section 3 for potential health effects and Section 4 for first aid measures.

<b>Oral toxicity</b>	LD50/oral/rat >4000 mg/kg , (OECD 401).
<b>Dermal toxicity</b>	LD50/dermal/rabbit > 12000 mg/kg, (OECD 402).
<b>Inhalation toxicity</b>	LC50: inh/rat 72,6 mg/l/4 hrs., (OECD 403).
<b>Carcinogenicity</b>	
OSHA - Hazard Communication Carcinogens	
Carbon black	1333-86-4 Present
<b>Symptoms and target organs</b>	
NIOSH - Pocket Guide - Target Organs	
Isopropyl Alcohol	67-63-0 eyes, skin, respiratory system
NIOSH - Pocket Guide - Target Organs	
Carbon black	1333-86-4 respiratory system, eyes (lymphatic cancer in presence of PAHs)

## 12. ECOLOGICAL INFORMATION

<b>Aquatic toxicity</b>	LC50/96h/Fathead minnows =>750 mg/L LC50/96h/Fathead minnows =9460 mg/L. EC50/48h/daphnia =13299 mg/L. EC50/72h/algae => 1000 mg/L.
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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> . Dispose of in compliance with federal, state, and local regulations.
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## 14. TRANSPORTATION INFORMATION

<b>General</b>	Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.
<b>IATA</b>	
Proper shipping name	Not applicable
Hazard class	Not applicable
Packaging exceptions	None
Identification number (UN)	None
Packing group	N/A



# MATERIAL SAFETY DATA SHEET

## 15. REGULATORY INFORMATION

<b>International regulations</b>	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. 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.
<b>US federal regulations</b>	US TSCA 12(b): Contains tetrahydrofuran (CASRN 109-99-9), subject to export notification requirements.
<b>HMIS ratings</b>	Health: 1 Flammability: 2 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 2 Instability: 1
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>Section 302 extremely hazardous substance</b>	No
<b>Section 311 hazardous chemical</b>	No
<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

## 16. OTHER INFORMATION

<b>Other information</b>	This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).
<b>Issue date</b>	Jan 26 2007 10:57PM
<b>Revision</b>	5
<b>Replaces sheet dated</b>	Feb 7 2006 12:01PM
<b>Disclaimer</b>	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.
<b>MSDS sections updated</b>	3. Hazards Identification: Chronic health effects 3. Hazards Identification: Carcinogenicity 15. Regulatory Information: Canadian regulations



# MATERIAL SAFETY DATA SHEET

## Explanation of abbreviations

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-Term Exposure Limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds