



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** 51645 Series  
**Version #** 03  
**Issue date** 08-Apr-2010  
**Revision date** 21-Jun-2013  
**Product use** Inkjet printing  
**CAS #** Mixture  
**Company identification** Hewlett-Packard Company  
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## 2. Hazards Identification

**Emergency overview** Contact with skin and eyes may result in irritation.  
**Other hazards** Complete toxicity data are not available for this specific formulation  
  
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.  
  
Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. 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

Hazardous components	CAS #	Percent
2-pyrrolidone	616-45-5	<15
Carbon black	1333-86-4	<5
Isopropyl Alcohol	67-63-0	<2.5
Non-hazardous components	CAS #	Percent
Water	7732-18-5	<80

**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).  
  
Carbon black is present only in a bound form in this preparation.

## 4. First Aid Measures

**General advice** No information

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

## 5. Fire Fighting Measures

### Flammable properties

None known.

### Extinguishing media

#### Suitable extinguishing media

CO2, water, dry chemical, or foam

#### Unsuitable extinguishing media

None known.

### Fire fighting equipment/instructions

Not available.

### Specific methods

None established.

### Hazardous combustion products

Refer to section 10.

## 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 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

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m3
Isopropyl alcohol (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon black (CAS 1333-86-4)	TWA	0.1 mg/m3
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards**  
**Components** **Type**

**Value**

400 ppm

**US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A**

**Components**

**Type**

**Value**

Carbon black (CAS  
1333-86-4)

TWA

3.5 mg/m3

Isopropyl alcohol (CAS  
67-63-0)

STEL

1225 mg/m3

TWA

500 ppm

980 mg/m3

400 ppm

**Exposure guidelines**

Exposure limits have not been established for this product.

**Engineering controls**

Use in a well ventilated area.

**Personal protective equipment**

**General**

Use personal protective equipment to minimize exposure to skin and eye.

**General hygiene  
considerations**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical & Chemical Properties**

**Appearance**

Not available.

**Physical state**

Liquid.

**Form**

Not available.

**Color**

Black.

**Odor**

Not available.

**pH**

7.8 - 8.4

**Vapor pressure**

Not determined

**Boiling point**

200 °F (93.33 °C)

**Melting point/Freezing point**

Not available.

**Solubility (water)**

Soluble in water

**Specific gravity**

1 - 1.2

**Flash point**

131.00 - 136.00 °F (55.00 - 57.78 °C); No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).

**Viscosity**

> 2 cp

**VOC**

< 116.6 g/l

**Other information**

For other VOC regulatory data/information see Section 15.

**10. Chemical Stability & Reactivity Information**

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

No information available

**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 data**

**Components**

**Species**

**Test Results**

2-pyrrolidone (CAS 616-45-5)

**Acute**

*Oral*

LD50

Guinea pig

6500 mg/kg

Components	Species	Test Results
Carbon black (CAS 1333-86-4)	Rat	6500 mg/kg
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
Isopropyl Alcohol (CAS 67-63-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	12800 mg/kg
<i>Oral</i>		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
		4.5 g/kg
	Rabbit	6410 mg/kg
		5.03 g/kg
	Rat	5045 mg/kg
		4.7 g/kg
<i>Other</i>		
LD50	Mouse	1509 mg/kg
	Rat	1099 mg/kg
<b>Carcinogenicity</b>	Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint.	
<b>ACGIH Carcinogens</b>		
2-PROPANOL (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.	
CARBON BLACK, INHALABLE FRACTION (CAS 1333-86-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.	
<b>Serious eye damage/eye irritation</b>	Not available.	
<b>Further information</b>	Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.	

## 12. Ecological Information

<b>Aquatic toxicity</b>	LC50/96h/Fathead minnows =>750 mg/L		
<b>Ecotoxicological data</b>			
Components	Species		Test Results
2-pyrrolidone (CAS 616-45-5)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
Isopropyl Alcohol (CAS 67-63-0)			
<b>Aquatic</b>			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
<b>Persistence and degradability</b>	Not available.		
<b>Bioaccumulation / Accumulation</b>			

**Bioaccumulative potential****Octanol/water partition coefficient log Kow**

2-pyrrolidone	-0.85
Isopropyl Alcohol	0.05

**Partition coefficient**

2-pyrrolidone	-0.85
Isopropyl Alcohol	0.05

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**13. Disposal Considerations****Disposal instructions**

Do not allow this material to drain into sewers/water supplies.  
Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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****DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

**Further information**

Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

No ignition, sustained combustion, or flashing detected, using the Sustained Combustibility Test prescribed in the UN Manual of Tests and Criteria, Part III subsection 32.5.2. Refer to Dangerous Goods Regulations Section 3.3.1.3.

No ignition, sustained combustion or flashing detected using the sustained combustibility test (method in US CFR173, Appendix H).

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**15. Regulatory Information****US federal regulations**

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

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Not listed.

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Not regulated.

**DEA Exempt Chemical Mixtures Code Number**

Not regulated.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**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

**SARA 302 Extremely hazardous substance**

No

**SARA 311/312 Hazardous chemical**

No

<b>Other information</b>	Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments).
	VOC content (less water, less exempt compounds) = <592.5 g/L (U.S. requirement, not for emissions)
	VOC data based on formulation (Organic compounds minus solids)
<b>Other 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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.
<b>State regulations</b>	
<b>US - California Proposition 65 - CRT: Listed date/Carcinogenic substance</b>	
CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [ $\leq 10$ MICROMETERS]) (CAS 1333-86-4)	Listed: February 21, 2003 Carcinogenic.
<b>US - New Jersey RTK - Substances: Listed substance</b>	
Carbon black (CAS 1333-86-4)	Listed.
Isopropyl Alcohol (CAS 67-63-0)	Listed.
<b>US. Massachusetts RTK - Substance List</b>	
2-pyrrolidone (CAS 616-45-5)	
Carbon black (CAS 1333-86-4)	
Isopropyl Alcohol (CAS 67-63-0)	
<b>US. Pennsylvania RTK - Hazardous Substances</b>	
2-pyrrolidone (CAS 616-45-5)	Listed.
Carbon black (CAS 1333-86-4)	Listed.
Isopropyl Alcohol (CAS 67-63-0)	Listed.
<b>US. Rhode Island RTK</b>	
Carbon black (CAS 1333-86-4)	
Isopropyl Alcohol (CAS 67-63-0)	

## 16. Other Information

<b>HMIS® ratings</b>	Health: 1 Flammability: 2 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 2 Instability: 0
<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>Other information</b>	This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).
<b>Issue date</b>	08-Apr-2010
<b>This data sheet contains changes from the previous version in section(s):</b>	Product and Company Identification: Product Uses Physical & Chemical Properties: Multiple Properties Regulatory Information: Risk Phrases - Labeling GHS: Classification
<b>Manufacturer information</b>	Hewlett-Packard Company 3000 Hanover Street Palo Alto, California 94304-1112 US (Direct) 1-503-494-7199 (Toll-free within the US) 1-800-457-4209

## 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