



Material Safety Data Sheet

1.0 Product and Company Identification

Identification of the preparation: **51645 Series – No 45 Black**

Use of the preparation: Inkjet printing

Company Identification: Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, Oregon 97330-4239
United States

Emergency telephone number: 1-800-457-4209 (USA and Canada)
Hewlett-Packard Health Effects Line: 503-494-7199 (USA direct)
Singapore: +001-800-332-13321

General information telephone number: 208-323-2551 (USA direct)

Local Contact Information

Ireland
Liffey Park Technology Campus
Barnhall Road,
Leixlip, Co. Kildare
Phone: 01 6150000

United Kingdom
Hewlett-Packard, Ltd.
Cain Road, Amen Corner
Bracknell, Berkshire, RG12 1HN
Phone: 1344 36-0000

| Hazard Rating | NFPA/HMIS |
|------------------------|-----------|
| Health | 1 |
| Flammability | 2 |
| Instability/Reactivity | 0 |
| Special | none |

2.0 Composition/Information on Hazardous Ingredients

This ink supply contains an aqueous ink formulation

| Component/Substance | CAS Number | EU Number | % by Weight | EU classification |
|---------------------|------------|-----------|-------------|-------------------|
| 2-Pyrrolidone | 616-45-5 | 210-843-1 | <10 | Xi; R36/37/38 |
| Isopropyl alcohol | 67-63-0 | 200-661-7 | <5 | F; Xi; R11-36-67 |
| Carbon black | 1333-86-4 | 215-609-9 | <5 | not classified |
| Water | 7732-18-5 | 231-791-2 | > 50 | not classified |

3.0 Hazard Identification

The black ink is not classified according to EU Directive 1999/45/EC



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3.1 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.

3.2 Acute Health Hazards

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

2-Pyrrolidone: Contact with eyes and skin may result in irritation. Inhalation may result in respiratory irritation. May cause nausea, vomiting, and diarrhea.

Isopropyl alcohol: Contact with skin may result in irritation. Inhalation may cause drowsiness or dizziness.

Carbon Black: Chronic inhalation studies performed with fine dust particles resulted in lung tumors in animals. The IARC classification (see sec 3.4) 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.

3.3 Chronic Health Hazards

None noted

3.4 Carcinogenicity

Carbon black has been classified by the International Agency for Research on Cancer (IARC) as Group 2B (possibly human carcinogen). None of the other ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP or OSHA.

4.0 First Aid Measures

Emergency telephone number
Hewlett-Packard Health Effects
Line:

1-800-457-4209 (USA and Canada)
503-494-7199 (USA direct)
Singapore: +001-800-332-13321

Inhalation:

Remove to fresh air. If symptoms persist, consult a physician.

Ingestion:

If stomach upset persists, consult a physician.

Skin:

Wash affected areas thoroughly with soap and water. If irritation persists, consult a physician.

Eyes:

Do not rub eyes. Immediately flush with large amounts of clean, lukewarm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists, consult a physician.



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5.0 Fire Fighting Measures

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| Extinguishing media: | Water, dry chemical, carbon dioxide, foam |
| Unsuitable Extinguishing Media: | None known |
| Special Firefighting Procedures: | None known |
| Unusual fire and explosion hazards: | No special hazards known |
| Auto-ignition temperature: | Not determined |
| Flashpoint (method): | Approximately 129° F - 135°F, No ignition, sustained combustion or flashing in the Sustained Combustibility Test (method in US 49CFR173, Appendix H) |
| Hazardous Combustion Products | Refer to section 10. |

6.0 Accidental release measures

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| Spill or Leak Procedures: | Standard eye and skin protection recommended. |
| Environmental precautions: | Do not discharge into drains (See also Section 13, Disposal considerations) |

7.0 Handling and Storage

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| Storage Temperature: | 59°F to 95°F; 15°C to 35°C |
| Handling and Storage precautions: | Keep out of the reach of children Keep away from extreme heat and cold. |
| Shelf Life: | 1 year |
| Special Sensitivity: | None |

8.0 Exposure control/ personal protection

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| 8.1 Exposure Limit Values | <u>Isopropyl alcohol:</u> OSHA, ACGIH, Canada, Austria, Belgium, France, Ireland, Italy, Spain, UK TWA=400ppm; Denmark, Germany, Switzerland TWA=200ppm; Netherlands TWA=250ppm; Sweden TWA=150ppm; Norway TWA=100ppm <u>Carbon black:</u> OSHA, ACGIH, Canada, Denmark, Finland, France, Ireland, Italy, Netherlands, Norway, UK TWA = 3.5mg/m ³ ; Sweden NGV=3 mg/m ³ ; Belgium TWA=3.6mg/m ³ ; Germany TWA=6mg/m ³ |
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8.2 Exposure Controls

Standard eye and skin protection for laboratory chemical safety recommended. Use in well ventilated area.

9.0 Physical and chemical properties

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| pH: | 7.8 – 8.4 |
| Boiling point: | Not Determined |
| Flash point: | Approximately 129° F - 135°F; 54°C – 57°C |
| Flammability: | US NFPA/HMIS Flammability rating = 2 |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |
| Vapor Pressure: | Not applicable |
| Relative density: | Specific Gravity 1.0 to 1.2 |
| Solubility: | Soluble in water |
| Partition coefficient: | Not determined |
| Viscosity: | Not determined |
| Vapor density: | >1 (air = 1.0) |
| Evaporation rate: | Not applicable |
| Other: | Not applicable |

10.0 Stability and reactivity

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| Stability: | Stable under normal storage conditions |
| Incompatibilities: | Strong oxidizers |
| Thermal decomposition products: | Oxides of carbon/nitrogen/sulfur, water |
| Hazardous polymerization: | None |

11.0 Toxicological information

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

12.0 Ecological information

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|--------------|---------------|----------------|
| 96 Hour LC50 | LC50 >750mg/L | Fathead minnow |
|--------------|---------------|----------------|

13.0 Disposal considerations

Dispose in accordance with all applicable US Federal, state, local, and country laws.



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14.0 Transportation information

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

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|------------------------------|----------------|
| UN Number: | Not applicable |
| Class: | Not applicable |
| Proper Shipping Name: | Not applicable |
| Packing Group: | Not applicable |
| Marine Pollutant: | Not listed |
| Special Precautions: | None noted |

15.0 Regulatory information

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| US EPA TSCA Inventory: | All ingredients are listed or exempt. |
| US EPA TSCA 12(b): | Does not contain listed chemicals. |
| EU Notification: | All ingredients are listed on EINECS and/or ELINCS or exempt. |
| EU Hazard Label (1999/45/EC): | This product does not require a label according to EU Directive 1999/45/EC. |

16.0 Other information

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| Date Prepared: | June 29, 2002 |
| HP-DMS Document Control Number: | 09000de7802284fb-eng |
| Revision Information: | This document replaces all prior versions of the MSDS |
| EU Risk (R) Phrase definitions: | R11: Highly flammable R36: Irritating to eyes R67: Vapors may cause drowsiness and dizziness R36/37/38: Irritating to eyes, respiratory system and skin. |
| Other Information | This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC and USA OSHA Hazard Communications regulations (29CFR1910:1200). |

DISCLAIMER: This Material Safety Data Sheet (MSDS) is provided without charge to customers of Hewlett-Packard. Data is the most current known to Hewlett-Packard at the time of preparation of this MSDS 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.