



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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|---|---|
| Identification of the substance/preparation | C4890A |
| Use of the preparation | Inkjet printing |
| Revision date | 02-18-2009 |
| CAS # | Mixture |
| Company identification | Hewlett-Packard, Ltd. Cain Road, Amen Corner Bracknell, Berkshire, RG12 1HN Telephone 1 344 36-0000 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: hpcustomerinquiries@hp.com Poison Information Center 0207771 5307 |

2. HAZARDS IDENTIFICATION

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.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

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.

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.

Physical hazards

Not classified as a physical hazard.

Health hazards

Not classified as a health hazard.

Environmental hazards

Not classified as an environmental hazard.

Other information

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



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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component/substance | CAS number | % by weight | EU number | EU classification |
|-----------------------------|---|-------------|-----------|-------------------|
| Water | 7732-18-5 | < 80 | 231-791-2 | |
| 2-pyrrolidone | 616-45-5 | < 10 | 210-483-1 | Xi, R36/38 |
| Carbon black | 1333-86-4 | < 10 | 215-609-9 | |
| Composition comments | This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended. For the full text of the R phrases mentioned in this Section, see Section 16. | | | |

4. FIRST AID MEASURES

| | |
|---------------------|---|
| Inhalation | Move to fresh air. If symptoms persist, get medical attention. |
| Skin contact | Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention. |
| 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. |
| Ingestion | If ingestion of a large amount does occur, seek medical attention. |

5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Flash point and method | > 93.3 °C (> 200 °F); Pensky-Martens Closed Cup |
| Suitable extinguishing media | CO ₂ , water, dry chemical, or foam |
| Extinguishing media which must not be used for safety reasons | None known. |
| Unusual fire & explosion hazards | None known. |
| Hazardous combustion products | Refer to section 10. |
| Specific methods | None established. |

6. ACCIDENTAL RELEASE MEASURES

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|----------------------------------|---|
| 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. |
| Containment procedures | Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. |
| Methods for cleaning up | Soak up with inert absorbent material. |

7. HANDLING AND STORAGE

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|-----------------|---|
| 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

Belgium

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | TWA | 3.6 mg/m ³ |



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Denmark

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | TLV | 3.5 mg/m ³ |

France

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | VME | 3.5 mg/m ³ |

Italy

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | TWA | 3.5 mg/m ³ |

Netherlands

| Components | Type | Value |
|--------------------------|---------|-----------------------|
| Carbon black (1333-86-4) | Ceiling | 3.5 mg/m ³ |

Spain

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | TWA | 3.5 mg/m ³ |

United Kingdom

| Components | Type | Value |
|--------------------------|------|-----------------------|
| Carbon black (1333-86-4) | STEL | 7 mg/m ³ |
| | TWA | 3.5 mg/m ³ |

| | |
|--------------------------------------|---|
| Additional exposure data | Exposure limits have not been established for this product. |
| Engineering measures | Provide adequate ventilation. |
| Personal protective equipment | |
| Skin and body protection | Protected gloves not required under intended use. |
| General | Use personal protective equipment to minimize exposure to skin and eye. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| Appearance | Not available. |
| Physical state | Liquid. |
| Form | Not available. |
| Color | Black |
| Odor | Not available. |
| Odour threshold | Not available. |
| pH | 7.8 - 8.8 |
| Boiling point | Not determined |
| Flash point | > 93.3 °C (> 200 °F); Pensky-Martens Closed Cup |
| Flammability | Not available. |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not determined |



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15. REGULATORY INFORMATION

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|----------------------------------|---|
| 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. 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. |
| Labeling | |
| Contains | 2-pyrrolidone, Carbon black, Water |
| EC Label | This product does not require a label according to EU Directive 1999/45/EC. |

16. OTHER INFORMATION

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|-------------------------------------|---|
| 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 |
| List of relevant R phrases | R36/38 Irritating to eyes and skin. |
| Other information | This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC. |
| 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. |
| Issue date | 02-18-2009 |
| 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 |