



# SAFETY DATA SHEET

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

|   |  |
|---|--|
| Identification of the substance/preparation | CB314A   |
| Use of the preparation                      | Inkjet printing  |
| Revision date                               | 01-23-2009   |
| Chemical family                             | ink  |
| CAS #                                       | Mixture  |
| Company identification                      | Hewlett-Packard, Ltd.<br>Cain Road, Amen Corner<br>Bracknell, Berkshire, RG12 1HN<br>Telephone 1 344 36-0000<br><br>Hewlett-Packard health effects line<br>(Toll-free within the US) 1-800-457-4209<br>(Direct) 1-503-494-7199<br>HP Customer Care Line<br>(Toll-free within the US) 1-800-474-6836<br>(Direct) 1-208-323-2551<br>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.

*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.

#### 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.

#### Physical hazards

Not classified as a physical hazard.



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|                              |   |
|------------------------------|---|
| <b>Health hazards</b>        | Not classified as a health hazard.  |
| <b>Environmental hazards</b> | Not classified as an environmental hazard.  |
| <b>Other information</b>     | This black ink is not classified according to EU Directive 1999/45/EC.<br><i>Isopropyl alcohol</i><br>This product is classified for health and physicochemical effects according to EU Directive 1999/45/EC with R11, R36 and R67. |

### 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  | < 20        | 210-483-1 | Xi, R36/38         |
| Carbon black                | 1333-86-4   | < 10        | 215-609-9 |                    |
| Isopropyl alcohol           | 67-63-0   | < 2.5       | 200-661-7 | Xi, F, R36, 67, 11 |
| <b>Composition comments</b> | This ink supply contains an aqueous ink formulation.<br>This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended.<br>For the full text of the R phrases mentioned in this Section, see Section 16. |             |           |                    |

### 4. FIRST AID MEASURES

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

### 5. FIRE-FIGHTING MEASURES

|  |   |
|--|---|
| <b>Flash point and method</b>  | 55 - 57.8 °C (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). |
| <b>Suitable extinguishing media</b>                                  | CO2, water, dry chemical, or foam   |
| <b>Extinguishing media which must not be used for safety reasons</b> | None known.   |
| <b>Unusual fire &amp; explosion hazards</b>                          | None known.   |
| <b>Hazardous combustion products</b>                                 | Refer to section 10.  |
| <b>Specific hazards</b>  | None known..  |
| <b>Specific methods</b>  | None established.   |

### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Wear appropriate personal protective equipment.  |
| <b>Environmental precautions</b> | Do not let product enter drains. Do not flush into surface water or sanitary sewer system. |

### 7. HANDLING AND STORAGE

|                 |   |
|-----------------|---|
| <b>Handling</b> | Avoid contact with skin, eyes and clothing.                               |
| <b>Storage</b>  | Keep out of the reach of children. Keep away from excessive heat or cold. |



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### Belgium

| Components                  | Type | Value                             |
|-----------------------------|------|-----------------------------------|
| Carbon black (1333-86-4)    | TWA  | 3.6 mg/m <sup>3</sup>             |
| Isopropyl alcohol (67-63-0) | STEL | 500 ppm<br>1248 mg/m <sup>3</sup> |
|                             | TWA  | 400 ppm<br>997 mg/m <sup>3</sup>  |

#### Denmark

| Components                  | Type | Value                            |
|-----------------------------|------|----------------------------------|
| Carbon black (1333-86-4)    | TLV  | 3.5 mg/m <sup>3</sup>            |
| Isopropyl alcohol (67-63-0) | TLV  | 200 ppm<br>490 mg/m <sup>3</sup> |

#### France

| Components                  | Type | Value                            |
|-----------------------------|------|----------------------------------|
| Carbon black (1333-86-4)    | VME  | 3.5 mg/m <sup>3</sup>            |
| Isopropyl alcohol (67-63-0) | VLE  | 400 ppm<br>980 mg/m <sup>3</sup> |

#### Germany

| Components                  | Type | Value                            |
|-----------------------------|------|----------------------------------|
| Isopropyl alcohol (67-63-0) | AGW  | 200 ppm<br>500 mg/m <sup>3</sup> |

#### Italy

| Components                  | Type | Value                 |
|-----------------------------|------|-----------------------|
| Carbon black (1333-86-4)    | TWA  | 3.5 mg/m <sup>3</sup> |
| Isopropyl alcohol (67-63-0) | STEL | 400 ppm               |
|                             | TWA  | 200 ppm               |

#### Netherlands

| Components                  | Type    | Value                            |
|-----------------------------|---------|----------------------------------|
| Carbon black (1333-86-4)    | Ceiling | 3.5 mg/m <sup>3</sup>            |
| Isopropyl alcohol (67-63-0) | TWA     | 250 ppm<br>650 mg/m <sup>3</sup> |

#### Spain

| Components                  | Type | Value                             |
|-----------------------------|------|-----------------------------------|
| Carbon black (1333-86-4)    | TWA  | 3.5 mg/m <sup>3</sup>             |
| Isopropyl alcohol (67-63-0) | STEL | 500 ppm<br>1250 mg/m <sup>3</sup> |
|                             | TWA  | 400 ppm<br>998 mg/m <sup>3</sup>  |



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## Sweden

| Components                  | Type | Value                |
|-----------------------------|------|----------------------|
| Isopropyl alcohol (67-63-0) | STEL | 600 mg/m3<br>250 ppm |
|                             | TWA  | 350 mg/m3<br>150 ppm |

## Switzerland

| Components                  | Type | Value                 |
|-----------------------------|------|-----------------------|
| Isopropyl alcohol (67-63-0) | STEL | 1000 mg/m3<br>400 ppm |
|                             | TWA  | 500 mg/m3<br>200 ppm  |

## United Kingdom

| Components                  | Type | Value                 |
|-----------------------------|------|-----------------------|
| Carbon black (1333-86-4)    | STEL | 7 mg/m3               |
|                             | TWA  | 3.5 mg/m3             |
| Isopropyl alcohol (67-63-0) | STEL | 1250 mg/m3<br>500 ppm |
|                             | TWA  | 400 ppm<br>999 mg/m3  |

|                                      |   |
|--------------------------------------|---|
| <b>Additional exposure data</b>      | Exposure limits have not been established for this product.   |
| <b>Engineering measures</b>          | Provide adequate ventilation.   |
| <b>Personal protective equipment</b> |   |
| <b>Respiratory protection</b>        | For use other than intended use (such as in the event of a large spill), goggles and respirators may be required. |
| <b>Eye protection</b>                | Not required under intended use.  |
| <b>Skin and body protection</b>      | Protected gloves not required under intended use.   |
| <b>General</b>                       | 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.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>Appearance</b>                                     | Not available.  |
| <b>Physical state</b>                                 | Liquid.   |
| <b>Form</b>   | Not available.  |
| <b>Colour</b>   | Black   |
| <b>Odour</b>  | Not available.  |
| <b>Odour threshold</b>                                | no appreciable odor   |
| <b>pH</b>   | 7.8 - 8.4   |
| <b>Boiling point</b>                                  | > 93.3 °C (> 200 °F)  |
| <b>Flash point</b>                                    | 55 - 57.8 °C (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). |
| <b>Flammability</b>                                   | Not available.  |
| <b>Flammability limits in air, upper, % by volume</b> | Not available.  |
| <b>Flammability limits in air, lower, % by volume</b> | Not available.  |



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|   |                  |
|---|------------------|
| Vapour pressure                         | Not determined   |
| Relative density                        | Not available.   |
| Solubility (water)                      | Soluble in water |
| Partition coefficient (n-octanol/water) | Not determined   |
| Viscosity                               | > 2 cp           |
| Vapour density                          | > 1 (air = 1.0)  |
| Evaporation rate                        | Not determined   |
| Melting point                           | Not available.   |
| Freezing point                          | Not available.   |
| Auto-ignition temperature               | Not available.   |
| Specific gravity                        | 1 - 1.2 g/mL     |
| VOC                                     | < 3 %            |
| Bulk density                            | 1 - 1.2 gm/ml    |

## 10. STABILITY AND REACTIVITY

|                                  |   |
|----------------------------------|---|
| Stability                        | Stable under recommended storage conditions.  |
| Materials to avoid               | 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. |
| Hazardous polymerisation         | Will not occur.   |

## 11. TOXICOLOGICAL INFORMATION

|                     |  |
|---------------------|--|
| Further information | Complete toxicity data are not available for this specific formulation..<br>Refer to Section 3 for potential health effects and Section 4 for first aide measures. |
|---------------------|--|

## 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.<br>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> . |
|-----------------------|---|

## 14. TRANSPORT INFORMATION

### ADR

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### IATA

|                      |                |
|----------------------|----------------|
| Proper shipping name | Not applicable |
| Hazard class         | Not applicable |
| UN number            | None.          |
| Packing group        | N/A            |
| Packaging exceptions | None.          |
| Packaging non bulk   | None.          |
| Labels required      | None.          |

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



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## 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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China. |
| <b>Labeling</b>                  |   |
| <b>Contains</b>                  | 2-pyrrolidone, Carbon black, Isopropyl alcohol, Water   |
| <b>EC Label</b>                  | This product does not require a label according to EU Directive 1999/45/EC.   |

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## 16. OTHER INFORMATION

|  |   |
|--|---|
| <b>Manufacturer information</b>  | Hewlett-Packard Company<br>1000 NE Circle Boulevard<br>Corvallis, OR 97330-4239 US<br>(Direct) 1-503-494-7199<br>(Toll-free within the US) 1-800-457-4209   |
| <b>List of relevant R phrases</b>  | R11 Highly flammable.<br>R36 Irritating to eyes.<br>R36/38 Irritating to eyes and skin.<br>R67 Vapours may cause drowsiness and dizziness   |
| <b>Other information</b>   | This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.   |
| <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>Issue date</b>  | 01-23-2009  |
| <b>This data sheet contains changes from the previous version in section(s):</b> | HAZARDS IDENTIFICATION: Chronic health effects<br>HAZARDS IDENTIFICATION: Carcinogenicity<br>EXPOSURE CONTROLS/PERSONAL PROTECTION: Respiratory protection  |



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## 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  |