



# SAFETY DATA SHEET

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

**Identification of the preparation** Q2321Series

**Use of the substance/preparation** Inkjet printing

**Version No.** 04

**Revision date** 11-Sep-2012

**CAS #** Mixture

**Company identification** Hewlett-Packard, Ltd.  
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Poison Information Center 0207771 5307

## 2. HAZARDS IDENTIFICATION

**Emergency Overview** Contact with skin and eyes may result in irritation.  
Causes skin irritation.

### Acute health effects

#### Skin contact

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

*2-pyrrolidone*

Contact with skin may result in irritation.

*Aliphatic diol*

Contact with skin may result in irritation.

#### Eye contact

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Aliphatic diol*

Contact with eyes may result in irritation.

#### Inhalation

*2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Aliphatic diol*

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

None known.

#### Carcinogenicity

None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

#### Other information

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

#### Classification

Not classified.

#### Physical hazards

Not classified as a physical hazard.

#### Health hazards

Not classified as a health hazard.

**Environmental hazards** Not classified as an environmental hazard.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components     | CAS #       | Percent | EC-No.      | Classification |
|----------------|-------------|---------|-------------|----------------|
| Water          | 7732-18-5   | < 90    | 231-791-2   |                |
| 2-pyrrolidone  | 616-45-5    | < 5     | 210-483-1   | Xi;R36/38      |
| Aliphatic diol | Proprietary | < 5     | Proprietary |                |

**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** Remove to fresh air. If symptoms persist, get medical attention.  
**Skin contact** Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.  
**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.  
**General advice** No additional information

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.  
**Extinguishing media which must not be used for safety reasons** None known.  
**Unusual fire & explosion hazards** None known.  
**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.  
**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.  
**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

**Additional exposure data** Exposure limits have not been established for this product.  
**Exposure controls** Use in a well ventilated area.  
**Occupational exposure controls**  
**General** Use personal protective equipment to minimize exposure to skin and eye.  
**Hygiene measures** Handle in accordance with good industrial hygiene and safety practices.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Liquid.  
**Physical state** Liquid  
**Form** Not available.  
**Colour** Black.  
**Odour** Not available.

|   |  |
|---|--|
| <b>Odour threshold</b>                                | Not available.                             |
| <b>pH</b>   | 9  |
| <b>Boiling point</b>                                  | Not determined                             |
| <b>Flash point</b>                                    | 93.3 °C (200 °F) Pensky-Martens Closed Cup |
| <b>Flammability limits in air, upper, % by volume</b> | Not available.                             |
| <b>Flammability limits in air, lower, % by volume</b> | Not determined                             |
| <b>Vapour pressure</b>                                | Not determined                             |
| <b>Relative density</b>                               | Not available.                             |
| <b>Solubility (water)</b>                             | Soluble in water                           |
| <b>Partition coefficient (n-octanol/water)</b>        | Not available                              |
| <b>Viscosity</b>                                      | 2 cp                                       |
| <b>Vapour density</b>                                 | Not available.                             |
| <b>Evaporation rate</b>                               | Not determined                             |
| <b>Melting point</b>                                  | Not available.                             |
| <b>Freezing point</b>                                 | Not available.                             |
| <b>Auto-ignition temperature</b>                      | Not available.                             |
| <b>Specific gravity</b>                               | 1  |
| <b>VOC</b>  | < 159 g/l                                  |

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## 10. STABILITY AND REACTIVITY

|   |   |
|---|---|
| <b>Hazardous decomposition products</b> | Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. |
| <b>Stability</b>                        | Stable under recommended storage conditions.  |
| <b>Materials to avoid</b>               | Incompatible with strong bases and oxidizing agents.  |
| <b>Hazardous polymerisation</b>         | Will not occur.   |

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## 11. TOXICOLOGICAL INFORMATION

|  |   |
|--|---|
| <b>Serious eye damage/eye irritation</b> | Not available.  |
| <b>Further information</b>               | This ink formulation has not been tested for toxicological effects.<br>Refer to Section 2 for potential health effects and Section 4 for first aide measures. |

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## 12. ECOLOGICAL INFORMATION

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>Aquatic toxicity</b> | LC50/96h/Fathead minnows =>750 mg/L. |
|-------------------------|--------------------------------------|

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## 13. DISPOSAL CONSIDERATIONS

|                              |  |
|------------------------------|--|
| <b>Disposal instructions</b> | Dispose of in compliance with federal, state, and local regulations. |
|------------------------------|--|

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## 14. TRANSPORT INFORMATION

|                            |  |
|----------------------------|--|
| <b>Further information</b> | Not a dangerous good under DOT, IATA, ADR, IMDG, or RID. |
|----------------------------|--|

### ADR

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

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## 15. REGULATORY INFORMATION

### Labeling

|                 |   |
|-----------------|---|
| <b>Contains</b> | 2-pyrrolidone, Aliphatic diol, Water  |
| <b>EC label</b> | This product does not require a label according to EU Directive 1999/45/EC. |

**Regulatory information**

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.

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**16. OTHER INFORMATION****Wording of the R-phrases in sections 2 and 3**

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**

11-Sep-2012

**This data sheet contains changes from the previous version in section(s):**

PHYSICAL AND CHEMICAL PROPERTIES: Appearance  
PHYSICAL AND CHEMICAL PROPERTIES: Colour  
TOXICOLOGICAL INFORMATION: Further information  
TRANSPORT INFORMATION: Further information  
REGULATORY INFORMATION: Other information

**Manufacturer information**

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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: &lt;value&gt;</b> | Toxicity Characteristics Leaching Procedure                         |
| <b>TLV</b>                 | Threshold Limit Value   |
| <b>TSCA</b>                | Toxic Substances Control Act  |
| <b>VOC</b>                 | Volatile Organic Compounds  |