



# SAFETY DATA SHEET

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

**Identification of the preparation** 51604A Rev B

**Use of the Substance/Preparation** Inkjet printing

**Version #** 02

**Revision date** 15-Sep-2010

**CAS #** Mixture

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## 2. HAZARDS IDENTIFICATION

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

*Alkyldiol*  
Contact with skin may result in irritation.

*Food Black 2 acid salt #3*  
This product may cause an allergic skin reaction.

**Eye contact** *2-pyrrolidone*  
Contact with eyes may result in irritation.

*Alkyldiol*  
Contact with eyes may result in irritation.

**Inhalation** *2-pyrrolidone*  
Inhalation may result in respiratory irritation.

*Alkyldiol*  
Inhalation may result in respiratory irritation.

**Ingestion** *2-pyrrolidone*  
Ingestion may result in nausea, vomiting and diarrhea.

*Ethylene glycol*  
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

*Food Black 2 acid salt #3*  
Toxic if swallowed.

### 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** Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitisation reaction.

**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.

|                              |  |
|------------------------------|--|
| <b>Classification</b>        | R43  |
| <b>Physical hazards</b>      | Not classified as a physical hazard.       |
| <b>Health hazards</b>        | May cause sensitization by skin contact.   |
| <b>Environmental hazards</b> | Not classified as an environmental hazard. |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Components                | CAS #       | Percent | EC-No.      | Classification     |
|---------------------------|-------------|---------|-------------|--------------------|
| Water                     | 7732-18-5   | < 40    | 231-791-2   |                    |
| 2-pyrrolidone             | 616-45-5    | < 30    | 210-483-1   | Xi;R36/38          |
| Alkyldiol                 | Proprietary | < 7.5   | Proprietary |                    |
| Ethylene glycol           | 107-21-1    | < 25    | 203-473-3   | Xn;R22             |
| Food Black 2 acid salt #3 | Proprietary | < 5     | Proprietary | T;R25, R43, R52/53 |

**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**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Remove to fresh air. If symptoms persist, get medical attention.  |
| <b>Skin contact</b> | Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.  |
| <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>Suitable extinguishing media</b>                                  | Dry chemical, CO2, water spray or regular 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>Specific methods</b>  | None established.                               |
| <b>Hazardous combustion products</b>                                 | Refer to section 10.                            |

**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.   |
| <b>Containment procedures</b>    | 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.  |
| <b>Methods for cleaning up</b>   | Soak up with inert absorbent material.   |
| <b>Other information</b>         | 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**

|                 |   |
|-----------------|---|
| <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. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure limit values****United Kingdom**

| Components                 | Type | Value          | Form         |
|----------------------------|------|----------------|--------------|
| Ethylene glycol (107-21-1) | STEL | 104.0000 mg/m3 | Vapor.       |
|                            |      | 40.0000 ppm    | Vapor.       |
|                            | TWA  | 10.0000 mg/m3  | Particulate. |

| Components                            | Type  | Value         | Form   |
|---------------------------------------|---|---------------|--------|
|                                       |   | 20.0000 ppm   | Vapor. |
|                                       |   | 52.0000 mg/m3 | Vapor. |
| <b>Additional exposure data</b>       | Exposure limits have not been established for this product.             |               |        |
| <b>Exposure controls</b>              | Use in a well ventilated area.  |               |        |
| <b>Occupational exposure controls</b> |   |               |        |
| <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>Color</b>  | Not available.                                 |
| <b>Odor</b>   | Not available.                                 |
| <b>Odour threshold</b>                                | Not available.                                 |
| <b>pH</b>   | 7 - 7.4  |
| <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>Vapor 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>Vapor 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 - 1.2  |
| <b>VOC</b>  | < 3 %  |

## 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 polymerization</b>         | Will not occur.   |

## 11. TOXICOLOGICAL INFORMATION

|  |  |
|--|--|
| <b>Oral toxicity</b>                     | LD50/oral/rat >2500mg/kg (OECD 401)<br>Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC. |
| <b>Acute toxicity</b>                    | Non- irritant in rabbit (OECD 404)<br>Not classified for Dermal irritation according to EU Directive 67/548/EEC and 1999/45/EC.    |
| <b>Serious eye damage/eye irritation</b> | Non - irritant in rabbit (OECD 405)<br>Not classified for eye irritation according to EU Directive 67/548/EEC and 1999/45/EC.      |
| <b>Skin sensitization</b>                | Not available.   |

|                            |   |
|----------------------------|---|
| <b>Sensitization</b>       | Sensitizer in guinea pig (OECD 406)<br>Repeated contact may cause allergic reactions in very susceptible persons.   |
| <b>Further information</b> | Complete toxicity data are not available for this specific formulation<br>Refer to Section 2 for potential health effects and Section 4 for first aid 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.

## 14. TRANSPORT INFORMATION

**Further information** Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.

### ADR

Not regulated as dangerous goods.

### IATA

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

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

## 15. REGULATORY INFORMATION

### Labeling

**Contains** 2-pyrrolidone, Alkyldiol, Ethylene glycol, Food Black 2 acid salt #3, Water

### Symbol(s)



Irritant

**R-phrase(s)** R43 May cause sensitization by skin contact.

**S-phrase(s)** S2 Keep out of the reach of children.  
S24 Avoid contact with skin.

### 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.

Contains Food Black 2 acid salt

## 16. OTHER INFORMATION

### Wording of the R-phrases in sections 2 and 3

R22 Harmful if swallowed.  
R25 Toxic if swallowed.  
R36/38 Irritating to eyes and skin.  
R43 May cause sensitization by skin contact.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 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** 15-Sep-2010

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

HAZARDS IDENTIFICATION: Routes of exposure  
HAZARDS IDENTIFICATION: Other information  
TOXICOLOGICAL INFORMATION: Oral toxicity  
TOXICOLOGICAL INFORMATION: Acute toxicity  
TOXICOLOGICAL INFORMATION: Further information  
TOXICOLOGICAL INFORMATION: Skin sensitization  
TOXICOLOGICAL INFORMATION: Serious eye damage/eye irritation  
TRANSPORT INFORMATION: Further 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</b>   | Toxicity Characteristics Leaching Procedure                         |
| <b>TLV</b>    | Threshold Limit Value   |
| <b>TSCA</b>   | Toxic Substances Control Act  |
| <b>VOC</b>    | Volatile Organic Compounds  |