SAFETY DATA SHEET

1. Identification

Product identifier: CC641 Series
Other means of identification: Not available.
Recommended use: Inkjet printing
Recommended restrictions: None known.
Company identification: Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-5020

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-760-710-0048
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

2. Hazard(s) identification

Physical hazards: Not classified.
Health hazards: Not classified.
Environmental hazards: Not classified.
OSHA defined hazards: Not classified.

Label elements

Hazard symbol: None.
Signal word: None.
Hazard statement: Not available.
Precautionary statement

Prevention: Not available.
Response: Not available.
Storage: Not available.
Disposal: Not available.

Hazard(s) not otherwise classified (HNOC)

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. This black ink is not classified according to EU Directive 1999/45/EC. 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. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>75-85</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>1,5-pentanediol</td>
<td></td>
<td>111-29-5</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Modified carbon black #6</td>
<td>Proprietary</td>
<td>&lt; 5</td>
<td></td>
</tr>
</tbody>
</table>
Composition comments

Carbon black is present only in a bound form in this preparation.

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.

Most important symptoms/effects, acute and delayed
Not available.

5. Fire-fighting measures

Suitable extinguishing media
Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
Not applicable.

Special protective equipment and precautions for firefighters
Not available.

Specific methods
None established.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear appropriate personal protective equipment.

Methods and materials for containment and cleaning up
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.

Environmental precautions
Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

7. Handling and storage

Precautions for safe handling
Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities
Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure controls/personal protection

Occupational exposure limits
No exposure limits noted for ingredient(s).

Biological limit values
No biological exposure limits noted for the ingredient(s).

Exposure guidelines
Exposure limits have not been established for this product.

Appropriate engineering controls
Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

Eye/face protection
Not available.

Skin protection
Hand protection
Not available.

Other
Not available.

Respiratory protection
Not available.

Thermal hazards
Not available.
9. Physical and chemical properties

**Appearance**
- Physical state: Not available.
- Color: Black.
- Odor: Not available.
- Odor threshold: Not available.
- pH: 7.5 - 8.2

**Melting point/freezing point**
- Not available.

**Initial boiling point and boiling range**
- Not determined

**Flash point**
- > 230.0 °F (> 110.0 °C) Setaflash Closed Cup

**Evaporation rate**
- Not determined

**Flammability (solid, gas)**
- Not available.

**Upper/lower flammability or explosive limits**
- Flammability limit - lower (%): Not determined
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

**Vapor pressure**
- Not determined

**Solubility(ies)**
- Solubility (water): Soluble in water

**Partition coefficient (n-octanol/water)**
- Not available.

**Auto-ignition temperature**
- Not available.

**Decomposition temperature**
- Not available.

**Viscosity**
- >= 2 cp

**Other information**
- For other VOC regulatory data/information see Section 15.
- VOC (Weight %): < 147 g/l

10. Stability and reactivity

**Reactivity**
- Not available.

**Chemical stability**
- Stable under recommended storage conditions.

**Possibility of hazardous reactions**
- Will not occur.

**Conditions to avoid**
- Not available.

**Incompatible materials**
- 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.

11. Toxicological information

**Symptoms related to the physical, chemical and toxicological characteristics**
- Not available.

**Information on toxicological effects**

**Acute toxicity**
- Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**
- Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization
  Respiratory sensitization
  Based on available data, the classification criteria are not met.
  Skin sensitization
  Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Reproductive toxicity
Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure
Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

Further information
Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50 Guinea pig</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>Rat</td>
<td>6500 mg/kg</td>
</tr>
</tbody>
</table>

12. Ecological information

Aquatic toxicity
Not expected to be harmful to aquatic organisms.

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC641 Series (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50 Fathead minnow (Pimephales promelas)</td>
<td>&gt; 750 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

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<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50 Water flea (Daphnia pulex)</td>
</tr>
</tbody>
</table>

 Persistence and degradability
Not available.

 Bioaccumulative potential
Not available.

 Partition coefficient n-octanol / water (log Kow)
2-pyrrolidone -0.85

 Mobility in soil
Not available.

 Other adverse effects
Not available.

13. Disposal considerations

Disposal instructions
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
Do not allow this material to drain into sewers/water supplies.
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 http://www.hp.com/recycle.
### 14. Transport information

**DOT**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.

**IMDG**
Not regulated as dangerous goods.

**ADR**
Not regulated as dangerous goods.

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

### 15. Regulatory information

**US federal regulations**
US TSCA 12(b): Does not contain listed chemicals.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  Not regulated.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  Not listed.
- **SARA 304 Emergency release notification**
  Not regulated.
  Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delayed Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Fire Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Pressure Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Reactivity Hazard - No</td>
</tr>
</tbody>
</table>

**SARA 302 Extremely hazardous substance**
Not listed.

**SARA 311/312 Hazardous chemical**
No

**Other federal regulations**

- **Safe Drinking Water Act (SDWA)**
  Not regulated.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  2-pyrrolidone (CAS 616-45-5)

- **US. New Jersey Worker and Community Right-to-Know Act**
  Not listed.

- **US. Pennsylvania Worker and Community Right-to-Know Law**
  2-pyrrolidone (CAS 616-45-5)

- **US. Rhode Island RTK**
  Not regulated.

- **US. California Proposition 65**
  Not Listed.

**Other information**
VOC content (less water, less exempt compounds) = <709 g/L (U.S. requirement, not for emissions) VOC data based on formulation (Organic compounds minus solids)

**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.

### 16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>15-May-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version #</td>
<td>01</td>
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</table>

Material name: CC641 Series

8934 Version #: 01 Issue date: 15-May-2015
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.

Manufacturer information

Hewlett-Packard Company
3000 Hanover Street
Palo Alto, California 94304-1112 US
Direct 1-650-857-5020

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