1. Chemical Product and Company Identification

Material name: CG304S
Use of the preparation: Inkjet printing
Version #: 03
Revision date: 26-Mar-2008
CAS #: Mixture
Manufacturer information: Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, OR 97330-4239 US

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199

General information telephone number
HP Customer Care Line 1-800-474-6836
(Toll-free) 1-800-474-6836
(Direct) 1-208-323-2551
Date prepared: Mar 26, 2008
MSDS number: 255742

2. Hazards Identification

Emergency overview: Contact with skin and eyes may result in irritation.
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.
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.

### 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component/substance</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 80</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>&lt; 5</td>
</tr>
</tbody>
</table>

**Composition comments**
This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

### 4. First Aid Measures

**First aid procedures**

#### 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.

#### Skin contact
Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

#### Inhalation
Remove to fresh air. If symptoms persist, get medical attention.

#### Ingestion
If ingestion of a large amount does occur, seek medical attention.

### 5. Fire Fighting Measures

**Flash point and method**
> 200 °F (> 93.3 °C); Pensky-Martens Closed Cup

**Hazardous combustion products**
Refer to section.

**Flammable properties**
None known.

**Extinguishing media**

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

- **Unsuitable extinguishing media**
  None known.

**Unusual fire and explosion hazard**
None known.

**Special firefighting procedures**
None established.

### 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.

**Methods for containment**
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

Exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>3.5 mg/m3</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)
Carbon black 1333-86-4 3.5 mg/m3 TWA

OSHA - Final PELs - Time Weighted Averages (TWAs)
Carbon black 1333-86-4 3.5 mg/m3 TWA

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

Personal protective equipment

General
Use personal protective equipment to minimize exposure to skin and eye.

Eye / face protection
Not required under intended use.

Skin protection
Protected gloves not required under intended use.

Respiratory protection
For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>pH</td>
<td>8 - 9.3</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200 °F (&gt; 93.3 °C); Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, upper, % by volume</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
10. Chemical Stability & Reactivity Information

Chemical stability  
Stable under recommended storage conditions.

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.

Possibility of hazardous reactions  
Will not occur.

11. Toxicological Information

Carcinogenicity
U.S. - OSHA - Hazard Communication Carcinogens
Carbon black 1333-86-4 Present

Symptoms and target organs
NIOSH - Pocket Guide - Target Organs
Carbon black 1333-86-4 respiratory system, eyes (lymphatic cancer in presence of PAHs)

12. Ecological Information

Aquatic toxicity  
LC50/96h/Fathead minnows =

Persistence and degradability  
Not available

13. Disposal Considerations

Disposal instructions  
Dispose of in compliance with federal, state, and local regulations. 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. Transportation Information

Department of Transportation (DOT) Requirements  
Not regulated as hazardous goods.
MATERIAL SAFETY DATA SHEET

IATA
- Proper shipping name: Not applicable
- Hazard class: Not applicable
- UN number: None
- Packing group: N/A
- Packaging exceptions: None

15. Regulatory Information

US federal regulations
- US TSCA 12(b): Contains, subject to export notification requirements.

CERCLA (Superfund) reportable quantity
- None

Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Hazard categories:
  - Immediate Hazard: No
  - Delayed Hazard: No
  - Fire Hazard: No
  - Pressure Hazard: No
  - Reactivity Hazard: No
- Section 302 extremely hazardous substance: No
- Section 311 hazardous chemical: No

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.

State regulations
- U.S. - California - Proposition 65 - Carcinogens List
  - Carbon black 1333-86-4 carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)
- U.S. - Pennsylvania - RTK (Right to Know) List
  - Carbon black 1333-86-4 Present
- U.S. - New Jersey - Right to Know Hazardous Substance List
  - Carbon black 1333-86-4 sn 0342

16. Other Information

HMIS® ratings
- Health: 1
- Flammability: 1
- Physical hazard: 0

NFPA ratings
- Health: 1
- Flammability: 1
- Instability: 0

Issue date
- Mar 26 2008 2:38PM

Revision
- 3

Replaces sheet dated
- Dec 15 2007 7:56PM
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3. Hazards Identification: Routes of exposure
3. Hazards Identification: Chronic health effects
3. Hazards Identification: Carcinogenicity
8. Exposure Controls/Personal Protection: Respiratory

Explanation of abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response Compensation and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COC</td>
<td>Cleveland Open Cup</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act (aka SARA)</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>REC</td>
<td>Recommended</td>
</tr>
<tr>
<td>REL</td>
<td>Recommended Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act of 1986</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-Term Exposure Limit</td>
</tr>
<tr>
<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>