SAFETY DATA SHEET

1. Identification
Product identifier: C9450Series
Other means of identification: Not available.
Recommended use: Inkjet printing
Recommended restrictions: None known.
Company identification: HP Inc.
1501 Page Mill Road
Palo Alto, CA 94304-1112
United States
Telephone 650-857-5020
HP Inc. health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-760-710-0048
HP Inc. 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: Specific target organ toxicity, repeated exposure (oral) Category 2 (kidney)
Environmental hazards: Not classified.
OSHA defined hazards: Not classified.
Label elements:
Signal word: Warning
Hazard statement: May cause damage to organs (Kidney) through prolonged or repeated exposure.
Precautionary statement:
Prevention: P270 - Do not eat, drink or smoke when using this product.
Response: P314 - Get medical attention/advice if you feel unwell.
Storage: Not available.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC):
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.
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;7.5</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td>56-81-5</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Alkyldiol</td>
<td>Proprietary</td>
<td></td>
<td>&lt;5</td>
</tr>
</tbody>
</table>
### Chemical name and synonyms

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td></td>
<td>111-46-6</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Carbon black</td>
<td></td>
<td>1333-86-4</td>
<td>&lt;1</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

**Inhalation**
Move 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**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>PEL</td>
<td>3.5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Glycerol (CAS 56-81-5)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>3 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>
US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA 0.1 mg/m³</td>
</tr>
</tbody>
</table>

US. Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td>TWA 10 mg/m³</td>
</tr>
</tbody>
</table>

**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.

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

### 9. Physical and chemical properties

**Appearance**
- **Physical state** Not available.
- **Color** Grey, Dark Grey, Black.
- **Odor** Not available.
- **Odor threshold** Not available.
- **pH** 9.4
- **Melting point/freezing point** Not available.
- **Initial boiling point and boiling range** Not determined
- **Flash point** 200.0 °F (93.3 °C) Pensky-Martens 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 determined
- **Decomposition temperature** Not available.
- **Viscosity** Not available.

**Other information**
For other VOC regulatory data/information see Section 15.
VOC (Weight %)  < 96 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.
- repeated exposure  May cause damage to organs (Kidney) through prolonged or repeated exposure.

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

Further information  Complete toxicity data are not available for this specific formulation

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td></td>
</tr>
<tr>
<td>LD50 Guinea pig</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>LD50 Rat</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>LD50 Rat</td>
<td>&gt; 8000 mg/kg</td>
</tr>
<tr>
<td>LD50 Dog</td>
<td>9000 mg/kg</td>
</tr>
<tr>
<td>LD50 Cat</td>
<td>8700 mg/kg</td>
</tr>
<tr>
<td>LD50 Mouse</td>
<td>13.3 g/kg</td>
</tr>
<tr>
<td>Carbon black</td>
<td></td>
</tr>
<tr>
<td>LD50 Guinea pig</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>LD50 Rat</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>LD50 Rat</td>
<td>&gt; 8000 mg/kg</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td></td>
</tr>
<tr>
<td>LD50 Rabbit</td>
<td>11890 mg/kg</td>
</tr>
<tr>
<td>LD50 Cat</td>
<td>3300 mg/kg</td>
</tr>
<tr>
<td>LD50 Dog</td>
<td>9000 mg/kg</td>
</tr>
<tr>
<td>LD50 Guinea pig</td>
<td>8700 mg/kg</td>
</tr>
<tr>
<td>LD50 Mouse</td>
<td>13.3 g/kg</td>
</tr>
</tbody>
</table>

Material name: C9450Series

10070 Version #: 04 Revision date: 20-Aug-2016 Issue date: 09-Apr-2015
### 12. Ecological information

#### Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>C9450Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas) &gt; 750 mg/l, 96 hours</td>
</tr>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia pulex) 13.21 mg/l, 48 hours</td>
</tr>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Western mosquitofish (Gambusia affinis) &gt; 32000 mg/l, 96 hours</td>
</tr>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout, Oncorhynchus mykiss (Oncorhynchus mykiss) 51000 - 57000 mg/l, 96 hours</td>
</tr>
<tr>
<td>Glycerol (CAS 56-81-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td></td>
</tr>
<tr>
<td><strong>Persistence and degradability</strong></td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td><strong>Bioaccumulative potential</strong></td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient n-octanol / water (log Kow)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>-0.85</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
<td></td>
</tr>
<tr>
<td><strong>Mobility in soil</strong></td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td><strong>Other adverse effects</strong></td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

#### 13. Disposal considerations

**Disposal instructions**
- Do not allow this material to drain into sewers/water supplies.
- Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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. 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

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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate Hazard - No
- Delayed Hazard - Yes
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

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)
- Glycerol (CAS 56-81-5)

US. New Jersey Worker and Community Right-to-Know Act

Glycerol (CAS 56-81-5)

US. Pennsylvania Worker and Community Right-to-Know Law

- 2-pyrrolidone (CAS 616-45-5)
- Diethylene glycol (CAS 111-46-6)
- Glycerol (CAS 56-81-5)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not listed.

Other information

VOC content (less water, less exempt compounds) = <451.6 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

Issue date 09-Apr-2015
Revision date 20-Aug-2016
Version # 04

Disclaimer

This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP 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.
Material name: C9450Series
10070  Version #: 04  Revision date: 20-Aug-2016  Issue date: 09-Apr-2015

Manufacturer information
HP Inc.
1501 Page Mill Road
Palo Alto, CA 94304-1112 US
Direct 1-650-857-5020

Explanation of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</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>