SAFETY DATA SHEET

1. Identification

Product identifier          C5081Series
Other means of identification None.
Recommended use             Inkjet printing
Recommended restrictions    None known.

Manufacturer/Importer/Supplier/Distributor information
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               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)

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

This product is not classified as hazardous according to OSHA CFR 1910.1200 (HazCom 2012).

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>65-75</td>
</tr>
<tr>
<td>1,5-pentanediol</td>
<td></td>
<td>111-29-5</td>
<td>&lt;15</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Alkyldicarboxylic acid*</td>
<td></td>
<td>Proprietary*</td>
<td>&lt;7.5</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

**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**  
None known.

**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**  
This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Not available.</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>3.8 - 4.2</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200.0 °F (&gt; 93.3 °C) Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Vapor pressure</th>
<th>Not determined</th>
</tr>
</thead>
</table>

**Vapor density**

| >= 1 (air = 1.0) |

**Solubility(ies)**

<table>
<thead>
<tr>
<th>Solubility (water)</th>
<th>Soluble in water</th>
</tr>
</thead>
</table>

**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. |

<table>
<thead>
<tr>
<th>Oxidizing properties</th>
<th>Not determined</th>
</tr>
</thead>
</table>

| VOC                  | < 157 g/l estimated |

### 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

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Under normal conditions of intended use, this material is not expected to be an inhalation hazard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>Contact with skin may result in mild irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Contact with eyes may result in mild irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Health injuries are not known or expected under normal use.</td>
</tr>
</tbody>
</table>
Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Based on available data, the classification criteria are not met.
Non irritant in rabbit (OECD 404)

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.
Not classified as an irritant according to, OECD 405.

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

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxictology Program (NTP) Report on Carcinogens
Not listed.

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.

12. Ecological information

Aquatic toxicity

Static acute toxicity (trout), survival (100 mg/L) = 100%
Static acute toxicity (trout), survival (10 mg/L) = 100%

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5081Series</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas) 434 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</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>
</tbody>
</table>

Alkyl dicarboxylic acid (CAS Proprietary)

Aquatic

| Fish | LC50 | Fish | 101, 96 Hours |

Persistence and degradability

Not available.

Bioaccumulative potential

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

- 2-pyrrolidone: -0.85
- Alkyldicarboxylic acid: -0.59

Mobility in soil: Not available.
Other adverse effects: Not available.

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: 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 regulated.

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
- SARA 302 Extremely hazardous substance
  Not listed.
- SARA 311/312 Hazardous chemical
  No

Other federal regulations:

- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
  Not regulated.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
  Not regulated.
- Safe Drinking Water Act (SDWA)
  Not regulated.

US state regulations: Not Listed

Other information:

- VOC content (less water, less exempt compounds) = <539 g/L (U.S. requirement, not for emissions)
- VOC data based on formulation (Organic compounds minus solids)
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.

### Regulatory information

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

<table>
<thead>
<tr>
<th>Issue date</th>
<th>20-May-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>19-Mar-2019</td>
</tr>
<tr>
<td>Version #</td>
<td>03</td>
</tr>
<tr>
<td>Other information</td>
<td>This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).</td>
</tr>
</tbody>
</table>

### 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.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

### 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