1. Identification

Product identifier: C5024Series

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>Alkyl dicarboxylic acid*</td>
<td></td>
<td>Proprietary*</td>
<td>&lt;7.5</td>
</tr>
</tbody>
</table>

Material name: C5024Series

9401  Version #: 03  Revision date: 28-Sep-2018  Issue date: 09-Mar-2015
Chemical name: C5024Series

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.

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.

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>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Cyan</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>3.8 - 4.2</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>&gt; 200.0 °F (&gt; 93.3 °C) Pensky-Martens Closed Cup</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>&gt;= 1 (air = 1.0)</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>&gt;= 2 cp</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
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<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>&gt;= 2 cp</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>VOC</td>
<td>&lt; 145.5 g/l estimated</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reactivity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Chemical stability</strong></td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td><strong>Possibility of hazardous reactions</strong></td>
<td>Will not occur</td>
</tr>
<tr>
<td><strong>Conditions to avoid</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Incompatible materials</strong></td>
<td>Incompatible with strong bases and oxidizing agents.</td>
</tr>
<tr>
<td><strong>Hazardous decomposition products</strong></td>
<td>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

**Information on likely routes of exposure**

- **Inhalation**: Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- **Skin contact**: Contact with skin may result in mild irritation.
- **Eye contact**: Contact with eyes may result in mild irritation.
- **Ingestion**: Health injuries are not known or expected under normal use.

**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.
### Test Results

#### Components

<table>
<thead>
<tr>
<th>2-pyrrolidone (CAS 616-45-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>Rat</td>
</tr>
<tr>
<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.

  - Not regulated.

- **US. National Toxicology 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>C5024Series</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&lt; 400 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>Water flea (Daphnia pulex)</td>
<td>13.21 mg/l, 48 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alkyldicarboxylic acid (CAS Proprietary)</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>101, 96 Hours</td>
</tr>
</tbody>
</table>

### Persistence and degradability

- Not available.

### Bioaccumulative potential

- Not available.

#### Partition coefficient n-octanol / water (log Kow)

<table>
<thead>
<tr>
<th>Component</th>
<th>log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td>-0.85</td>
</tr>
<tr>
<td>Alkyldicarboxylic acid</td>
<td>-0.59</td>
</tr>
</tbody>
</table>

### Mobility in soil

- Not available.

### Other adverse effects

- Not available.
13. Disposal considerations

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.

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)
- 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 data based on formulation (Organic compounds minus solids)
- VOC content (less water, less exempt compounds) = <501.5 g/L (U.S. requirement, not for emissions)

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-Mar-2015
Revision date 28-Sep-2018
Version # 03
Other information

This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

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.

Revision information

Composition / Information on Ingredients: Ingredients
Toxicological information: Corrosivity
Toxicological information: Eye contact
Toxicological information: Eye contact
Toxicological information: Ingestion
Toxicological information: Inhalation
Toxicological information: Skin contact
Regulatory information: Regulatory information
Other information, including date of preparation or last revision: Disclaimer
HazReg Data: Pacific Rim

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