1. Product and Company Identification

Identification of the preparation: CN054Series
Product use: Inkjet printing
Version #: 02
Revision date: 21-Oct-2012
CAS #: Mixture
Company identification: Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501
Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

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**
- Avoid contact with skin Contact with skin may result in irritation.
  - 1-(2-hydroxyethyl)-2-pyrrolidone
  - Contact with skin may result in irritation.
  - 2-pyrrolidone
  - Contact with skin may result in irritation.
  - Aliphatic diol
  - Contact with skin may result in irritation.
  - Tetraethylene glycol
  - Contact with skin may result in irritation.

**Eye contact**
- 1-(2-hydroxyethyl)-2-pyrrolidone
  - Contact with eyes may result in irritation.
  - 2-pyrrolidone
  - Contact with eyes may result in irritation.
  - Aliphatic diol
  - Contact with eyes may result in irritation.
  - Tetraethylene glycol
  - Contact with eyes may cause irritation.

**Inhalation**
- Inhalation may result in respiratory irritation.
  - 1-(2-hydroxyethyl)-2-pyrrolidone
  - Inhalation may result in respiratory irritation.
  - 2-pyrrolidone
  - Inhalation may result in respiratory irritation.
  - Aliphatic diol
  - Inhalation may result in respiratory irritation.
  - Tetraethylene glycol
  - Inhalation may result in respiratory irritation.
Ingestion

1-(2-hydroxyethyl)-2-pyrrolidone
Ingestion may result in nausea, vomiting and diarrhea.

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
None known.

Carcinogenicity
None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-(2-hydroxyethyl)-2-pyrrolidone</td>
<td>3445-11-2</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 7.5</td>
</tr>
<tr>
<td>Aliphatic diol</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Cyan Colorant</td>
<td>Proprietary</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Tetraethylene glycol</td>
<td>112-60-7</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 65</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. If irritation persists get medical attention.

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

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

General advice
No additional information

5. Fire Fighting Measures

Flammable properties
None known.

Extinguishing media
Suitable extinguishing media
For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide.
For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.

Unsuitable extinguishing media
None known.

Specific methods
None established.

Hazardous combustion products
Refer to section 10.

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.

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 away from excessive heat or cold. Keep out of the reach of children.

8. Exposure Controls / Personal Protection
Exposure guidelines
Exposure limits have not been established for this product.

Engineering controls
Use in a well ventilated area.

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

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

9. Physical & Chemical Properties
Appearance
Not available.

Color
Cyan

Odor
Not available.

Odor threshold
Not available.

Physical state
Liquid

Form
Not available.

pH
8.8

Melting point
Not available.

Freezing point
Not available.

Boiling point
Not available.

Flash point
> 212 °F (> 100 °C) Pensky-Martens Closed Cup US EPA Method 1020

Evaporation rate
Not available.

Flammability limits in air, upper, % by volume
Not available.

Flammability limits in air, lower, % by volume
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Specific gravity
Not available.

Relative density
Not available.

Solubility (water)
Not available.

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

VOC
< 291 g/L

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. Toxico logical Information
Serious eye damage/eye irritation
Not available.

Further information
This ink formulation has not been tested for toxicological effects. Refer to Section 2 for potential health effects and Section 4 for first aid measures.
12. Ecological Information

Ecotoxicity
No information available.
This product is highly soluble in water.

Aquatic toxicity
No data available for this product.

Persistence and degradability
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

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

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

RID
Not regulated as dangerous goods.

15. Regulatory Information

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

DEA Exempt Chemical Mixtures Code Number
Not regulated.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
Not listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA (Superfund) reportable quantity
None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical
No

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

State regulations
US, Massachusetts RTK - Substance List
2-pyrrolidone (CAS 616-45-5)
US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
2-pyrrolidone (CAS 616-45-5) Listed.

US. Rhode Island RTK
Not regulated.

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.

Other information
VOC content (less water, less exempt compounds) = < 1148 g/L (U.S. requirement, not for emissions)

16. Other Information

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

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

NFPA ratings
Health: 1
Flammability: 1
Instability: 0

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.

Issue date
21-Oct-2012

This data sheet contains changes from the previous version in section(s):
Product and Company Identification: Alternate Trade Names
Composition / Information on Ingredients: Disclosure Overrides

Manufacturer information
Hewlett-Packard Company
3000 Hanover Street
Palo Alto, California 94304-1112 US
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209
**Explanation of abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</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>
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<tr>
<td>DOT</td>
<td>Department of Transportation</td>
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<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>
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<tr>
<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
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<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>
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</table>