SAFETY DATA SHEET

1. Identification

Product identifier: CN622Series
Other means of identification: Not available.
Recommended use: Inkjet printing
Recommended restrictions: None known.
Company identification: HP
1501 Page Mill Road
Palo Alto, CA 94304-1112
United States
Telephone 650-857-5020

HP health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-760-710-0048
HP 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>65-85</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Cyan pigment</td>
<td>Proprietary</td>
<td></td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td>56-81-5</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).

Material name: CN622Series
11694   Version #: 02   Revision date: 25-Aug-2015   Issue date: 20-May-2015
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. If irritation persists get medical attention.

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.

General information
Potential routes of overexposure to this product are skin and eye contact

5. Fire-fighting measures

Suitable extinguishing media
CO2, water, dry chemical, or 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
Wear self contained breathing apparatus for fire fighting if necessary.
Use a water spray to cool fully closed containers.

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>Glycerol (CAS 56-81-5)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Cyan</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>9 - 10</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;= 230.0 °F (&gt;= 110.0 °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>
<tr>
<td>Upper/lower flammability or explosive limits</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>Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility(ies)</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>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other information</td>
<td>For other VOC regulatory data/information see Section 15.</td>
</tr>
<tr>
<td>VOC (Weight %)</td>
<td>&lt; 96.02 g/l</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

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

11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>Not available.</td>
</tr>
<tr>
<td>Information on toxicological effects</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>
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
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.

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Guinea pig</td>
</tr>
<tr>
<td>Rat</td>
<td>6500 mg/kg</td>
</tr>
</tbody>
</table>

12. Ecological information

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN622Series (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&lt; 750 mg/l, 96 hours</td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td></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><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>Water flea (Daphnia pulex)</td>
<td>13.21 mg/l, 48 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>Rainbow trout,donaldson trout (Oncorhynchus mykiss)</td>
<td>51000 - 57000 mg/l, 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>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td>-0.85</td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
</tr>
</tbody>
</table>

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. Do not dispose of together with general office waste. Ensure collection and disposal with an appropriately licensed waste contractor. 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.
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 - 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
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
US. Massachusetts RTK - Substance List
2-pyrrolidone (CAS 616-45-5)
US. New Jersey Worker and Community Right-to-Know Act
Not listed.
US. Pennsylvania Worker and Community Right-to-Know Law
2-pyrrolidone (CAS 616-45-5)
US. Rhode Island RTK
Not regulated.
US. California Proposition 65
Not Listed.

Other information
VOC content (less water, less exempt compounds) = <411 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  20-May-2015
Revision date  25-Aug-2015
Version #  02

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.

Revision Information
Hazard(s) identification: Hazard(s) not otherwise classified (HNOC)
Other information, including date of preparation or last revision: Disclaimer

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

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