SAFETY DATA SHEET

1. Identification

Product identifier
F9K23Series

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)

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>70-80</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td></td>
<td>111-46-6</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Alkyldiol</td>
<td>Proprietary</td>
<td></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).

#### 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**

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

**US. Workplace Environmental Exposure Level (WEEL) Guides**

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td>TWA</td>
<td>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 Cyan

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
Specific gravity 1 - 1.1

Other information
For other VOC regulatory data/information see Section 15.

VOC (Weight %) < 180 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
May cause damage to organs (Kidney) through prolonged or repeated exposure.

Specific target organ toxicity - 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>Test Results</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td>6500 mg/kg</td>
<td>Guinea pig</td>
</tr>
<tr>
<td>6500 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>Acute Oral</td>
<td>3300 mg/kg</td>
<td>Cat</td>
</tr>
<tr>
<td>9000 mg/kg</td>
<td>Dog</td>
<td></td>
</tr>
<tr>
<td>8700 mg/kg</td>
<td>Guinea pig</td>
<td></td>
</tr>
<tr>
<td>13.3 g/kg</td>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>26.9 g/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>12565 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>9.6 g/kg</td>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>2000 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>7700 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>7.7 g/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11890 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>2000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.7 g/kg</td>
<td></td>
<td></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>F9K23Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</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>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>Water flea (Daphnia pulex) 13.21 mg/l, 48 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
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<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</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>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.

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 - 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) = <692 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 21-Jan-2016
Revision date 04-Aug-2016
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
1. Product and Company Identification: Alternate Trade Names
   Hazard(s) identification: <INDENT>Disposal
   Hazard(s) identification: <INDENT>Prevention
   Hazard(s) identification: <INDENT>Response
   Hazard(s) identification: GHS Signal Words
   Hazard(s) identification: GHS Symbols

Manufacturer information
HP Inc.
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