SAFETY DATA SHEET

1. Identification

Product identifier       C4933Series
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>80-90</td>
</tr>
<tr>
<td>Aliphatic diol*</td>
<td>Proprietary*</td>
<td></td>
<td>&lt;10</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Substituted naphthalenesulfonate salt # 7*</td>
<td>Proprietary*</td>
<td>&lt;2.5</td>
<td></td>
</tr>
</tbody>
</table>

Material name: C4933Series  
9446   Version #: 04   Revision date: 02-Sep-2017   Issue date: 15-Apr-2015
1,4-Dioxane

**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.

**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>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane (CAS 123-91-1)</td>
<td>PEL</td>
<td>360 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane (CAS 123-91-1)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane (CAS 123-91-1)</td>
<td>Ceiling</td>
<td>3.6 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 ppm</td>
</tr>
</tbody>
</table>
### US. Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic diol</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.

#### US. ACGIH Threshold Limit Values

- 1,4-Dioxane (CAS 123-91-1) Can be absorbed through the skin.

#### US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

- P-DIOXANE; 1,4-DIOXACYCLOHEXANE; Can be absorbed through the skin.
- 1,4-DIETHYLENE DIOXIDE (CAS 123-91-1) Can be absorbed through the skin.

#### US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).

- 1,4-Dioxane (CAS 123-91-1) Skin designation applies.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

- 1,4-Dioxane (CAS 123-91-1) Can be absorbed through the skin.

#### US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A

- 1,4-Dioxane (CAS 123-91-1) Can be absorbed through the skin.

### Appropriate engineering controls

- Use in a well ventilated area.
- Provide adequate ventilation.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

- Not available.

#### Skin protection

- Not available.

#### Hand protection

- Not available.

#### Other protection

- Protected gloves not required under intended use.

#### 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**: Liquid.
- **Color**: Cyan
- **Odor**: Not available.
- **Odor threshold**: Not available.
- **pH**: 7 - 8
- **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

#### Vapor density

- >= 1 (air = 1.0)

#### Relative density

- Not available.
Solubility (water) - Soluble in water

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

Auto-ignition temperature - Not available.

Decomposition temperature - Not available.

Viscosity - Not available.

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

Oxidizing properties - Not determined

VOC - < 142 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

Information on likely routes of exposure

Inhalation - Not available.

Skin contact - Not available.

Eye contact - Not available.

Ingestion - Not available.

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.

Components | Species | Test Results
--- | --- | ---
2-pyrrolidone (CAS 616-45-5) | Acute | Oral
LD50 Rat &gt; 5000 mg/kg

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

IARC Monographs. Overall Evaluation of Carcinogenicity
1,4-Dioxane (CAS 123-91-1) 2B Possibly carcinogenic to humans.

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

US. National Toxicology Program (NTP) Report on Carcinogens
1,4-Dioxane (CAS 123-91-1) Reasonably Anticipated to be a Human Carcinogen.

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

12. Ecological information

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4933Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</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)</td>
</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane (CAS 123-91-1)</td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
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</tr>
</tbody>
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<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>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
</tr>
</tbody>
</table>

Persistence and degradability
Not available.

Bioaccumulative potential
Not available.

Partition coefficient n-octanol / water (log Kow)

<table>
<thead>
<tr>
<th>Substance</th>
<th>log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane</td>
<td>-0.27</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>-0.85</td>
</tr>
<tr>
<td>Aliphatic diol</td>
<td>-0.106</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)
1,4-Dioxane (CAS 123-91-1) Listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
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**
1,4-Dioxane (CAS 123-91-1)

**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**

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**
1,4-DIOXANE (CAS 123-91-1) Listed: January 1, 1988

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**
1,4-Dioxane (CAS 123-91-1)

**Other information**
VOC content (less water, less exempt compounds) = <873 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**
15-Apr-2015

**Revision date**
02-Sep-2017

**Version #**
04

**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.

**Revision information**
Composition / Information on Ingredients: Ingredients
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</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>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<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>
</tr>
<tr>
<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
</tr>
<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>
</tr>
</tbody>
</table>