1. Identification

Product identifier: C5086Series[PB][2]
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)
Category 2 (kidney)
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>Alkyldiol</td>
<td>Proprietary</td>
<td></td>
<td>&lt;5</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td></td>
<td>111-46-6</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).
- Carbon black is present only in a bound form in this preparation.

### 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 material is ingested, immediately contact a physician or poison control center.

**Most important symptoms/effects, acute and delayed**
Not available.

### 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**
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**
Not available.

**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>Carbon black (CAS 1333-86-4)</td>
<td>PEL</td>
<td>3.5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Glycerol (CAS 56-81-5)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>
Carbon black (CAS 1333-86-4)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td></td>
<td>0.1 mg/m³</td>
</tr>
</tbody>
</table>

Diethylene glycol (CAS 111-46-6)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td></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 required under intended use.

- **Skin protection**
  - **Hand protection**
    Not available.
  - **Other**
    Protected gloves not required under intended use.

- **Respiratory protection**
  For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

- **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**
  Black.

- **Odor**
  Not available.

- **Odor threshold**
  Not available.

- **pH**
  9.3

- **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.
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, aldehydes, ketones, hydrogen fluoride, fluorinated 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.

IARC Monographs. Overall Evaluation of Carcinogenicity
Carbon black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

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
May cause damage to organs (Kidney) through prolonged or 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>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea pig</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>Rat</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>Rabbit</td>
<td>11890 mg/kg</td>
</tr>
</tbody>
</table>

2-pyrrolidone (CAS 616-45-5)
Acute
Oral
LD50

Carbon black (CAS 1333-86-4)
Acute
Oral
LD50

Diethylene glycol (CAS 111-46-6)
Acute
Dermal
LD50
### 12. Ecological information

#### Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5086Series[PB][2]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic Acute</strong></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>
<tr>
<td><strong>Components</strong></td>
<td></td>
<td></td>
</tr>
<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>EC50</td>
<td>Water flea (Daphnia pulex) 13.21 mg/l, 48 hours</td>
</tr>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Western mosquitofish (Gambusia affinis) &gt; 32000 mg/l, 96 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>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss) 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)
- 2-pyrrolidone: -0.85
- Glycerol: -1.76

#### 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)
Carbon black (CAS 1333-86-4)
Glycerol (CAS 56-81-5)

US. New Jersey Worker and Community Right-to-Know Act
Carbon black (CAS 1333-86-4)
Glycerol (CAS 56-81-5)

US. Pennsylvania Worker and Community Right-to-Know Law
2-pyrrolidone (CAS 616-45-5)
Carbon black (CAS 1333-86-4)
Diethylene glycol (CAS 111-46-6)
Glycerol (CAS 56-81-5)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [<= 10 MICROMETERS]) Listed: February 21, 2003 (CAS 1333-86-4)

Other information
VOC content (less water, less exempt compounds) = < 863 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 10-Mar-2015
Revision date 08-Aug-2016
Version # 03

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.

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
1. Identification

Product identifier: C5086Series[MG][2]

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) Category 2 (kidney)

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>75-85</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td>56-81-5</td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Alkyldiol</td>
<td>Proprietary</td>
<td></td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

Material name: C5086Series[MG][2]

10070  Version #: 03  Revision date: 06-Aug-2016  Issue date: 10-Mar-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. 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**

#### 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>Carbon black (CAS 1333-86-4)</td>
<td>PEL</td>
<td>3.5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Glycerol (CAS 56-81-5)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

#### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>3 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td></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>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** Grey, Dark Grey, Black.
- **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**

For other VOC regulatory data/information see Section 15.
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 Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure May cause damage to organs (Kidney) through prolonged or 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

<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>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Guinea pig</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 8000 mg/kg</td>
</tr>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>11890 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Cat</td>
<td>3300 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Dog</td>
<td>9000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Guinea pig</td>
<td>8700 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>13.3 g/kg</td>
</tr>
</tbody>
</table>
**Components** | **Species** | **Test Results**
---|---|---
Rabbit | | 26.9 g/kg
Rat | | 12565 mg/kg

*Other*

LD50 Mouse | | 9.6 g/kg
Rabbit | | 2000 mg/kg
Rat | | 7700 mg/kg

### 12. Ecological information

#### Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5086Series[MG][2]</td>
<td>Aquatic Fish</td>
<td>LC50 Fathead minnow (Pimephales promelas) &gt; 750 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

#### Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Fish</th>
<th>LC50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&gt; 750 mg/l, 96 hours</td>
<td></td>
</tr>
<tr>
<td>Diethylene glycol (CAS 111-46-6)</td>
<td>Western mosquitofish (Gambusia affinis)</td>
<td>&gt; 32000 mg/l, 96 hours</td>
<td></td>
</tr>
<tr>
<td>Glycerol (CAS 56-81-5)</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
<td>51000 - 57000 mg/l, 96 hours</td>
<td></td>
</tr>
</tbody>
</table>

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

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

- 2-pyrrolidone: -0.85
- Glycerol: -1.76

### 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](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.
  
  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) = <451.6 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**
10-Mar-2015

**Revision date**
06-Aug-2016

**Version #**
03

**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: <INDENT>Disposal
Hazard(s) identification: <INDENT>Prevention
Hazard(s) identification: <INDENT>Response
Hazard(s) identification: GHS Signal Words
Hazard(s) identification: GHS Symbols

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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
TCCLP   Toxicity Characteristics Leaching Procedure
TLV     Threshold Limit Value
TSCA    Toxic Substances Control Act
VOC     Volatile Organic Compounds