Table of contents

CH646Series[C][2]-SDS_US-English-78.pdf

CH646Series[M][2]-SDS_US-English-06.pdf
1. Identification

Important information
*** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***

Product identifier
CH646Series[C][2]

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
650-857-1501

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.

GHS 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>70-80</td>
</tr>
<tr>
<td>1-(2-hydroxyethyl)-2-pyrrolidone</td>
<td></td>
<td>3445-11-2</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>
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.

5. Fire-fighting measures

Suitable extinguishing media
CO2, water, dry chemical, or foam

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
None known.

Special protective equipment and precautions for firefighters
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>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol (CAS 25322-68-3)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Particulate.</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.

Individual protection measures, such as personal protective equipment

Eye/face protection
Not available.

Skin protection

Hand protection
Not available.

Other
Not available.
### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Not available.</td>
</tr>
<tr>
<td>Form</td>
<td>Not available.</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>7.1 - 7.7</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) Setaflash Closed Tester</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>Vapor density</td>
<td>&gt;= 1 (air = 1.0)</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>2 cp</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></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>2 cp</td>
</tr>
<tr>
<td>Other information</td>
<td>For other VOC regulatory data/information see Section 15.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>VOC</td>
<td>&lt; 242 g/L</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

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

### 11. Toxicological information

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>Under normal conditions of intended use, this material is not expected to be an inhalation hazard.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>Contact with skin may result in mild irritation.</td>
</tr>
</tbody>
</table>
Eye contact

Contact with eyes may result in mild irritation.

Ingestion

Health injuries are not known or expected under normal use.

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.

<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>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Not classified as an irritant according to, Rabbit Enucleated Eye Test.

Respiratory or 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

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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

Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological information

Aquatic toxicity

Not expected to be harmful to aquatic organisms.

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH646Series[C][2]</td>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Acute Fish</td>
<td>LC50 Fathead minnow (Pimephales promelas)</td>
<td>&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>2-pyrrolidone (CAS 616-45-5)</td>
<td>Aquatic Crustacea</td>
</tr>
<tr>
<td>EC50 Water flea (Daphnia pulex)</td>
<td>13.21 mg/l, 48 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

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 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
Not regulated.

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
Not Listed

Other information
VOC content (less water, less exempt compounds) = < 965 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: 08-Apr-2015
Revision date: 24-Oct-2019
Version #: 06

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.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

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
SAFETY DATA SHEET

1. Identification

Important information: *** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***

Product identifier: CH646Series[M][2]

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: 650-857-1501

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. None of the ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP, OSHA or ACGIH.

GHS 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>70-85</td>
</tr>
</tbody>
</table>

Material name: CH646Series[M][2]

12836  Version #: 11  Revision date: 24-Oct-2019  Issue date: 11-Apr-2015
Chemical name | Common name and synonyms | CAS number | %
---|---|---|---
1-(2-hydroxyethyl)-2-pyrrolidone | | 3445-11-2 | < 10
2-pyrrolidone | | 616-45-5 | < 7.5
Substituted xanthylium salt #1* | Proprietary* | | < 2.5
Polyethylene glycol | | 25322-68-3 | <0.1

**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. 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.

**5. Fire-fighting measures**

**Suitable extinguishing media**
CO2, water, dry chemical, or foam

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
Refer to section 10.

**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>US. Workplace Environmental Exposure Level (WEEL) Guides</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol (CAS 25322-68-3)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Particulate.</td>
<td></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**
Not available.

**Hand protection**
Not available.
9. Physical and chemical properties

Appearance
- Physical state: Not available.
- Form: Not available.
- Color: Magenta
- Odor: Not available.
- Odor threshold: Not available.
- pH: 7 - 7.6
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: Not determined
- Flash point: > 230.0 °F (> 110.0 °C) Setaflash Closed Tester
- 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)

Solubility(ies)
- Solubility (water): Soluble in water
- Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.
Decomposition temperature: Not available.

Viscosity: 2 cp

Other information
- For other VOC regulatory data/information see Section 15.
- Oxidizing properties: Not determined
- Percent volatile: 5 % estimated
- Specific gravity: 1 - 1.2
- VOC: 191 g/L EPA Method 24

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**
Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**Skin contact**
Contact with skin may result in mild irritation.

**Eye contact**
Contact with eyes may result in mild irritation.

**Ingestion**
Health injuries are not known or expected under normal use.

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.

<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>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Oral LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substituted xanthylum salt #1</td>
<td>Rat</td>
<td>&lt;= 10000 mg/kg</td>
</tr>
<tr>
<td>Oral LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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
Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological information

**Aquatic toxicity**
Not expected to be harmful to aquatic organisms.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH646Series[M][2]</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&gt; 750 mg/l, 96 hours</td>
</tr>
<tr>
<td>Aquatic</td>
<td>Fish LC50</td>
<td></td>
</tr>
</tbody>
</table>

Material name: CH646Series[M][2]

12836  Version #: 11  Revision date: 24-Oct-2019  Issue date: 11-Apr-2015
<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>Aquatic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water flea (Daphnia pulex)</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
Not available.

**Bioaccumulative potential**
Not available.

**Partition coefficient n-octanol / water (log Kow)**
2-pyrrolidone -0.85

**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.

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**
Not regulated.

**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 Not Listed

Other information VOC content (less water, less exempt compounds) = 763 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 11-Apr-2015
Revision date 24-Oct-2019
Version # 11

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.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

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