SAFETY DATA SHEET

1. Identification
Product identifier: HP Color LaserJet CE321A Cyan Print Cartridge
Other means of identification: Not available.
Recommended use: This product is a cyan toner preparation that is used in HP LaserJet Pro CM1415,CP1525 series printers.
Recommended restrictions: None known.
Company identification: HP
1501 Page Mill Road
Palo Alto, CA 94304-1112
United States
Telephone 650-857-5020
HP health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-760-710-0048
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

2. Hazard(s) identification
Physical hazards: Not classified.
Health hazards: Not classified.
Environmental hazards: Not classified.
OSHA defined hazards: Not classified.
Label elements:
- Hazard symbol: None.
- Signal word: None.
- Hazard statement: Not available.
Precautionary statement:
- Prevention: Not available.
- Response: Not available.
- Storage: Not available.
- Disposal: Not available.
Hazard(s) not otherwise classified (HNOC): None known.
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>Styrene acrylate copolymer</td>
<td>Trade Secret</td>
<td>&lt;85</td>
<td></td>
</tr>
<tr>
<td>Pigment</td>
<td>Pigment</td>
<td>Trade Secret</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Wax</td>
<td>Wax</td>
<td>Trade Secret</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Amorphous silica</td>
<td>Amorphous silica</td>
<td>7631-86-9</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td>13463-67-7</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. First-aid measures
Inhalation: Move person to fresh air immediately. If irritation persists, consult a physician.
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, consult a physician.

Ingestion
Rinse mouth out with water. Drink one to two glasses of water. If symptoms occur, consult a physician.

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

5. Fire-fighting measures
Suitable extinguishing media
CO2, water, or dry chemical

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
Not applicable.

Special protective equipment and precautions for firefighters
Not available.

Fire-fighting equipment/instructions
If fire occurs in the printer, treat as an electrical fire.

6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Minimize dust generation and accumulation.

Methods and materials for containment and cleaning up
Not available.

Environmental precautions
Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

7. Handling and storage
Precautions for safe handling
Keep out of the reach of children. Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Keep away from excessive heat, sparks, and open flames.

Conditions for safe storage, including any incompatibilities
Keep out of the reach of children. Keep tightly closed and dry. Store at room temperature. Store away from strong oxidizers.

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>Titanium dioxide (CAS 13463-67-7)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica (CAS 7631-86-9)</td>
<td>TWA</td>
<td>6 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).
Exposure guidelines

USA OSHA (TWA/PEL): 15 mg/m³ (Total Dust), 5 mg/m³ (Respirable Fraction)

ACGIH (TWA/TLV): 10 mg/m³ (Inhalable Particulate), 3 mg/m³ (Respirable Particulate)

Amorphous silica: USA OSHA (TWA/PEL): 20 mppcf 80 (mg/m³)/%SiO₂, ACGIH (TWA/TLV): 10 mg/m³

TRGS 900 (Luftgrenzwert) - 10 mg/m³ (Einatembare partikel), 3 mg/m³ (Alveolengängige fraktion)

UK WEL: 10 mg/m³ (Respirable Dust), 5 mg/m³ (Inhalable Dust)

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.

9. Physical and chemical properties

Appearance

Fine powder

Physical state

Solid.

Color

Cyan

Odor

Slight plastic odor

Odor threshold

Not available.

pH

Not applicable

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not applicable

Flash point

Not applicable

Evaporation rate

Not applicable

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not flammable

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not applicable

Solubility(ies)

Solubility (water)

Negligible in water. Partially soluble in toluene and xylene.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not applicable

Decomposition temperature

Not available.

Viscosity

Not applicable

Other information

Percent volatile

0 % estimated

Softening point

176 - 266 °F (80 - 130 °C)

Specific gravity

1 - 1.2
10. Stability and reactivity

Reactivity
Not available.

Chemical stability
Stable under normal storage conditions.

Possibility of hazardous reactions
Will not occur.

Conditions to avoid
Imaging Drum: Exposure to light

Incompatible materials
Strong oxidizers

Hazardous decomposition products
Carbon monoxide and carbon dioxide.

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
Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium) 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
- Amorphous silica (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.
- Titanium dioxide (CAS 13463-67-7) 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.

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

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

Further information
Complete toxicity data are not available for this specific formulation Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica (CAS 7631-86-9)</td>
<td></td>
</tr>
<tr>
<td>Oral LD50 Mouse</td>
<td>&gt; 15000 mg/kg</td>
</tr>
<tr>
<td>Oral Rat</td>
<td>&gt; 22500 mg/kg</td>
</tr>
</tbody>
</table>

12. Ecological information

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE321A</td>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>&gt; 100 mg/l, 96 Hours</td>
</tr>
</tbody>
</table>
### Components Test Results

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

### 13. Disposal considerations

**Disposal instructions**

Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Finely dispersed particles may form explosive mixtures in air. Dispose of in compliance with federal, state, and local 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

**Further information** Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

### 15. Regulatory information

**US federal regulations**

US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

- **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 - No
  Fire Hazard - No
  Pressure Hazard - No
  Reactivity Hazard - No

- **SARA 302 Extremely hazardous substance**
  
  Not listed.

- **SARA 311/312 Hazardous chemical**

  No

**Other federal regulations**

- **Safe Drinking Water Act (SDWA)**

  Not regulated.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  
  Amorphous silica (CAS 7631-86-9)
  Titanium dioxide (CAS 13463-67-7)

- **US. New Jersey Worker and Community Right-to-Know Act**

  Titanium dioxide (CAS 13463-67-7)
US. Pennsylvania Worker and Community Right-to-Know Law
Amorphous silica (CAS 7631-86-9)
Titanium dioxide (CAS 13463-67-7)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**
TITANIUM DIOXIDE (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE) (CAS 13463-67-7)
Listed: September 2, 2011

**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** 16-Apr-2015
**Revision date** 12-Oct-2015
**Version #** 04

**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
11311 Chinden Boulevard
Boise, ID 83714 USA
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209

**Explanation of abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</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>