1. Identification

Product identifier: HP Color LaserJet CF451A Cyan Print Cartridge

Other means of identification: Not available.

Recommended use: This product is a cyan toner preparation that is used in HP Color LaserJet M652 / HP Color LaserJet M681 / HP Color LaserJet M653 / HP Color LaserJet M682 series printers.

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: 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 of the ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP, OSHA or ACGIH.

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>Wax</td>
<td>Wax</td>
<td>Trade Secret</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Pigment</td>
<td>Pigment</td>
<td>Trade Secret</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>&lt;1</td>
<td></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.
Specific methods None established.

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>

US. ACGIH Threshold Limit Values

<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>

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 (%)

Flammability limit - upper (%)

Explosive limit - lower (%)

Explosive limit - upper (%)

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 > 392 °F (> 200 °C)

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

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
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: 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

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF451A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>ErC50</td>
<td>Algae &gt; 100 mg/l, 72 Hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Crustacea &gt; 100 mg/l, 48 Hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish &gt; 100 mg/l, 96 Hours</td>
</tr>
<tr>
<td>Components</td>
<td>Species</td>
<td>Test Results</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna) &gt; 1000 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Mummichog (Fundulus heteroclitus) &gt; 1000 mg/l, 96 hours</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.

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.

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 - 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
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
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
25-Mar-2017
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.

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American Conference of Governmental Industrial Hygienists
Chemical Abstracts Service
Comprehensive Environmental Response Compensation and Liability Act
Code of Federal Regulations
Cleveland Open Cup
Department of Transportation
Emergency Planning and Community Right-to-Know Act (aka SARA)
International Agency for Research on Cancer
National Institute for Occupational Safety and Health
National Toxicology Program
Occupational Safety and Health Administration
Permissible Exposure Limit
Resource Conservation and Recovery Act
Recommended
Recommended Exposure Limit
Superfund Amendments and Reauthorization Act of 1986
Short-Term Exposure Limit
Toxicity Characteristics Leaching Procedure
Threshold Limit Value
Toxic Substances Control Act
Volatile Organic Compounds