



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	HP Color LaserJet CF451A Cyan Print Cartridge
<b>Other means of identification</b>	Not available.
<b>Recommended use</b>	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.
<b>Recommended restrictions</b>	None known.
<b>Company identification</b>	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

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	Not available.
<b>Precautionary statement</b>	
<b>Prevention</b>	Not available.
<b>Response</b>	Not available.
<b>Storage</b>	Not available.
<b>Disposal</b>	Not available.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None of the ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP, OSHA or ACGIH.
<b>Supplemental information</b>	This product is not classified as hazardous according to OSHA CFR 1910.1200 (HazCom 2012).

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Styrene acrylate copolymer		Trade Secret	<85
Wax	Wax	Trade Secret	<10
Pigment	Pigment	Trade Secret	<5
Titanium dioxide		13463-67-7	<1

## 4. First-aid measures

<b>Inhalation</b>	Move person to fresh air immediately. If irritation persists, consult a physician.
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<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth out with water. Drink one to two glasses of water. If symptoms occur, consult a physician.
<b>Most important symptoms/effects, acute and delayed</b>	Not available.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	CO2, water, or dry chemical
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Not applicable.
<b>Special protective equipment and precautions for firefighters</b>	Not available.
<b>Fire-fighting equipment/instructions</b>	If fire occurs in the printer, treat as an electrical fire.
<b>Specific methods</b>	None established.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Minimize dust generation and accumulation.
<b>Methods and materials for containment and cleaning up</b>	Not available.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

## 7. Handling and storage

<b>Precautions for safe handling</b>	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.
<b>Conditions for safe storage, including any incompatibilities</b>	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

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

Components	Type	Value	Form
Titanium dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3

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

<b>Exposure guidelines</b>	USA OSHA (TWA/PEL): 15 mg/m <sup>3</sup> (Total Dust), 5 mg/m <sup>3</sup> (Respirable Fraction) ACGIH (TWA/TLV): 10 mg/m <sup>3</sup> (Inhalable Particulate), 3 mg/m <sup>3</sup> (Respirable Particulate) Amorphous silica: USA OSHA (TWA/PEL): 20 mppcf 80 (mg/m <sup>3</sup> )/%SiO <sub>2</sub> , ACGIH (TWA/TLV): 10 mg/m <sup>3</sup> TRGS 900 (Luftgrenzwert) - 10 mg/m <sup>3</sup> (Einatembare partikel), 3 mg/m <sup>3</sup> (Alveolengängige fraktion) UK WEL: 10 mg/m <sup>3</sup> (Respirable Dust), 5 mg/m <sup>3</sup> (Inhalable Dust)
<b>Appropriate engineering controls</b>	Use in a well ventilated area.

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

<b>Eye/face protection</b>	Not available.
<b>Skin protection</b>	
<b>Hand protection</b>	Not available.
<b>Other</b>	Not available.
<b>Respiratory protection</b>	Not available.
<b>Thermal hazards</b>	Not available.

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**9. Physical and chemical properties**

<b>Appearance</b>	Fine powder
<b>Physical state</b>	Solid.
<b>Color</b>	Cyan
<b>Odor</b>	Slight plastic odor
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not flammable
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not applicable
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible in water. Partially soluble in toluene and xylene.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	> 392 °F (> 200 °C)
<b>Viscosity</b>	Not applicable
<b>Other information</b>	
<b>Percent volatile</b>	0 % estimated
<b>Softening point</b>	176 - 266 °F (80 - 130 °C)
<b>Specific gravity</b>	1 - 1.2

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## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Stable under normal storage conditions.
<b>Possibility of hazardous reactions</b>	Will not occur.
<b>Conditions to avoid</b>	Imaging Drum: Exposure to light
<b>Incompatible materials</b>	Strong oxidizers
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide.

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## 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

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.

**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.

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## 12. Ecological information

### Ecotoxicity

Product		Species	Test Results
CF451A			
<b>Aquatic</b>			
Algae	ErC50	Algae	> 100 mg/l, 72 Hours
Crustacea	EC50	Crustacea	> 100 mg/l, 48 Hours
Fish	LC50	Fish	> 100 mg/l, 96 Hours
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Titanium dioxide (CAS 13463-67-7)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

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**Other adverse effects** Not available.

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### 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>.

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### 14. Transport information

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

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### 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.

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### 16. Other information, including date of preparation or last revision

**Issue date** 25-Mar-2017

Material name: CF451A

14221 Version #: 01 Issue date: 25-Mar-2017

**Version #** 01

**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.

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**Explanation of abbreviations**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-Term Exposure Limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds