



# SAFETY DATA SHEET

## 1. Identification of the chemical and information about the manufacturer or supplier

### 1.1 Identification of the chemical products

1.1.1 Technical name HP Color LaserJet CF451A Cyan Print Cartridge

Other means of identification None.

### 1.1.2 Recommended use of the chemical and restrictions on use

**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.

**Limitations on use** None known.

### 1.2 Manufacturer/Importer/Supplier/Distributor information

#### 1.2.1 Manufacturer

ZAO Hewlett-Packard A.O.  
Highway Leningradskoe, House 16A, Building 3,  
125171, Moscow

**Telephone** 7 495 797-3500

#### 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

### 2.1. Hazard identification of chemical product as a whole (classification according to GOST 12.1.007-76 and GHS)

**Classification according to GOST 12.1.007-76** Not available.

#### GHS classification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

### 2.2 Labeling elements in compliance with GOST 31340-2013

2.2.1 Signal word None.

2.2.2 Symbols None.

2.2.3 Hazard statement Not available.

#### Precautionary statement

**Prevention** Not available.

**Response** Not available.

**Storage** Not available.

**Disposal** Not available.

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

**Supplemental information** None.

## 3. Composition/information on ingredients

### 3.1 Information on product as a whole

3.1.1 Chemical name (IUPAC) CF451A

3.1.2 Chemical formula O<sub>2</sub>Si (7631-86-9), O<sub>2</sub>Si (7631-86-9)

**3.1.3 General description of the composition (taking into account the brand assortment; preparation method)** Not applicable.

### 3.2 Components

Components	Concentration by weight (%)	Hygienic standards in the working area			CAS-No.	EC No.
		MAC, mg/m <sup>3</sup>	TSEL, mg/m <sup>3</sup>	Hazard classification		
Styrene acrylate copolymer	<85				Trade Secret	-
Wax	<10				Trade Secret	-
Pigment	<5				Trade Secret	-
Amorphous silica	<3	3	1	3	7631-86-9	231-545-4

## 4. First-aid measures

### 4.1. Observed symptoms

- 4.1.1 In case of exposure via inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- 4.1.2 In contact with skin** Contact with skin may result in mild irritation.
- 4.1.3 In contact with eyes** Contact with eyes may result in mild irritation.
- 4.1.4 In case of exposure via ingestion** Ingestion is not a likely route of exposure.

### 4.2 First-aid measures to be provided to victims

- 4.2.1 In case of exposure via inhalation** Move person to fresh air immediately. If irritation persists, consult a physician.
- 4.2.2 In contact with skin** Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
- 4.2.3 In contact with eyes** 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.
- 4.2.4 In case of exposure via ingestion** Rinse mouth out with water. Drink one to two glasses of water. If symptoms occur, consult a physician.
- 4.2.5 Contraindications** Not available.

## 5. Fire-fighting and explosion safety measures and means

- 5.1 General characteristics of fire-explosion properties** Not available.
- 5.2 Fire-explosion indicators** Not available.
- 5.3 Combustion and/or thermal destruction products and hazards arising from these** Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.
- 5.4 Recommended extinguishing media** CO<sub>2</sub>, water, or dry chemical
- 5.5 Forbidden extinguishing media** None known.
- 5.6 Special protective equipment for firefighters** Not available.
- 5.7 Specific extinguishing methods** None established.
- Special fire fighting procedures** If fire occurs in the printer, treat as an electrical fire.

## 6. Accident and emergency prevention and response measures and their consequences

### 6.1 Measures to prevent harmful effects on people, environment, buildings, constructions, etc. in case of accidents and emergencies

- 6.1.1 General required actions in case of an accident or emergency** Minimize dust generation and accumulation.
- 6.1.2 Personal protection equipment in case of the accident** Not available.

## 6.2 Procedures for the elimination of accidents and emergencies

**6.2.1 Procedures in case of leaks, spills, splashes** Not available.

**6.2.2 Actions in case of fire** Not available.

**Methods and materials for containment and cleaning up** Slowly vacuum or sweep the material into a bag or other sealed container. Clean remainder with a damp cloth or vacuum cleaner. If a vacuum is used, the motor must be rated as dust explosion-proof. Fine powder can form explosive dust-air mixtures. Dispose of in compliance with federal, state, and local regulations.

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

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## 7. Storage and handling requirements of chemicals during loading and unloading

### 7.1 Safety precautions when handling chemical products

**7.1.1 Technical safety measures** Not available.

**7.1.2 Environmental protection measures** Not available.

**7.1.3 Recommended safe handling and transportation advice** 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.

### 7.2 Chemical storage requirements

**7.2.1 Terms and conditions for safe storage** Not available.

**7.2.2 Packaging** Not available.

**7.3 Safety measures and storage requirements at domestic use** Keep out of the reach of children. Keep tightly closed and dry. Store at room temperature. Store away from strong oxidizers.

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## 8. Equipment for monitoring exposure and personal protective equipment

**8.1 Parameters of the working area that require monitoring** No exposure limits noted for ingredient(s).

### Occupational exposure limits

Russian Federation. Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	Ceiling	3 mg/m3	Aerosol.
	TWA	1 mg/m3	Aerosol.

**8.2 Measures to ensure the content of harmful substances in the working area below the exposure level concentration**  
, 5 mg/m3 (Respirable Fraction)  
, 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)

**Appropriate engineering controls** Use in a well ventilated area.

### 8.3 Worker personal protective equipment

**8.3.1 General recommendations** No personal respiratory protective equipment required under normal conditions of use.

**8.3.2 Respiratory protection** Not available.

#### 8.3.3 Protective equipment

**Eye/face protection** Not available.

**Hand protection** Not available.

**Other** Not available.

**Thermal hazards** Not available.

**8.3.4 Personal protection equipment in case of domestic use** Not applicable.

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## 9. Physical and chemical properties

<b>9.1 Physical appearance</b>	Fine powder
<b>Physical state</b>	Solid.
<b>Form</b>	solid
<b>Color</b>	Cyan
<b>Odor</b>	Slight plastic odor
<b>Odor threshold</b>	Not available.
<b>9.2 Parameters characterizing basic properties of the product</b>	
<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>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	> 392 °F (> 200 °C)
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not flammable
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Viscosity</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>Other data</b>	
<b>Evaporation rate</b>	Not applicable
<b>Oxidizing properties</b>	No information available.
<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>10.1 Chemical stability</b>	Stable under normal storage conditions.
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide.
<b>10.2 Reactivity</b>	Not available.
<b>10.3 Conditions to avoid</b>	Imaging Drum: Exposure to light
<b>Possibility of hazardous reactions</b>	Will not occur.
<b>Incompatible materials</b>	Strong oxidizers

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## 11. Toxicological information

<b>11.1 General exposure characteristics</b>	Not available.
<b>11.2 Routes of exposure</b>	Not available.
<b>11.3 Affected/target organs, tissues and systems of humans</b>	
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>11.4 Information on health hazards in case of direct exposure to the product and its effect</b>	
<b>Effect on upper respiratory tract irritation</b>	Not available.

## Respiratory or skin sensitization

Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Not listed.

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

**Skin sensitization** 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.

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

## 11.5 Information on long-term hazardous health effects

**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.

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

**Mutagenicity** Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)  
Based on available data, the classification criteria are not met.

**Cumulativeness** Not available.

**Chronic effects** Not available.

**11.6 Acute toxicity data** 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. Environmental impact information

**12.1 General description of the impact on the environment** Not available.

**12.2 Routes of exposure to environment** Not available.

### 12.3 The most important characteristics of the environmental impact

**12.3.1 Hygienic standards** Not available.

**12.3.2 Ecotoxicity** LC50: > 100 mg/l, Fish, 96.00 Hours

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

### 12.3.3 Biomigration and transformation of the environment due to the biodegradation or other processes

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

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## 13. Recommendations for waste (residues) disposal

**13.1 Safety precautions when handling the waste generated during use, storage, transportation** 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>.

**13.2 Information on the location and disposal methods, recycling or disposal of product waste, including packaging** Not available.

**13.3 Recommendation on the waste disposal generated during its domestic use** Not available.

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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. National and international regulatory information

### 15.1 National legislation

**15.1.1 Laws of the Russian Federation** Not available.

**15.1.2 Information about the documentation, regulatory requirements for the protection of human health and environment**

**Sanitary-Epidemiological Rules, 1.2.2353-08, Chemical substances, mixtures and products which are carcinogenic factors, 21 April 2008**

Not listed.

**Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.**

Amorphous silica (CAS 7631-86-9)

Aerosol with fibrogenic action.

Midrange hazardous.

### 15.2 International Conventions and Agreements

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.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Montreal Protocol

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

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## 16. Other information

### 16.1 Information on revision of the SDS

**Issue date** 03-Aug-2018

**Version #** 01

**Previous SDS number** Not applicable.

**16.2 List of references used in compiling the safety data sheet** Not available.

### Disclaimer

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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