



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 CE321A 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 LaserJet Pro CM1415, CP1525 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 known.

Supplemental information None.

3. Composition/information on ingredients

3.1 Information on product as a whole

3.1.1 Chemical name (IUPAC) CE321A

3.1.2 Chemical formula O₂Si (7631-86-9), O₂Si (7631-86-9), O₂-Ti (13463-67-7), O₂-Ti (13463-67-7)

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 ³	TSEL, mg/m ³	Hazard classification		
Styrene acrylate copolymer	<85				Trade Secret	-
Pigment	<10				Trade Secret	-
Wax	<10				Trade Secret	-
Amorphous silica	<3	3	1	3	7631-86-9	231-545-4
Titanium dioxide	<1		10	4	13463-67-7	236-675-5

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** CO₂, 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.

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.

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/m ³	Aerosol.
	TWA	1 mg/m ³	Aerosol.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	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.

9. Physical and chemical properties

9.1 Physical appearance	Fine powder
Physical state	Solid.
Form	solid
Color	Cyan
Odor	Slight plastic odor
Odor threshold	Not available.
9.2 Parameters characterizing basic properties of the product	
pH	Not applicable
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not flammable
Flammability limit - upper (%)	Not available.
Vapor pressure	Not applicable
Vapor density	Not applicable
Viscosity	Not applicable
Solubility(ies)	
Solubility (water)	Negligible in water. Partially soluble in toluene and xylene.
Partition coefficient (n-octanol/water)	Not available.
Other data	
Evaporation rate	Not applicable
Oxidizing properties	No information available.
Percent volatile	0 % estimated
Softening point	176 - 266 °F (80 - 130 °C)
Specific gravity	1 - 1.2

10. Stability and reactivity

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

11. Toxicological information

11.1 General exposure characteristics	Not available.
11.2 Routes of exposure	Not available.
11.3 Affected/target organs, tissues and systems of humans	
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.

11.4 Information on health hazards in case of direct exposure to the product and its effect

Effect on upper respiratory tract irritation 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.
Titanium dioxide (CAS 13463-67-7) 2B Possibly carcinogenic 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.

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
CE321A		
Aquatic		
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.

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.

14. Transport information

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

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.

Titanium dioxide (CAS 13463-67-7)

Aerosol with fibrogenic action.

Amorphous silica (CAS 7631-86-9)

Midrange hazardous.

Titanium dioxide (CAS 13463-67-7)

Slightly 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.

16. Other information

16.1 Information on revision of the SDS

Issue date 27-Jun-2015

Revision date 19-Oct-2018

Version # 05

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

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