



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the preparation HP Color LaserJet CE321A Cyan Print Cartridge

Use of the substance/preparation This product is a cyan toner preparation that is used in HP LaserJet Pro CM1415,CP1525 series printers.

Version No. 01

Revision date 28-Mar-2012

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2. HAZARDS IDENTIFICATION

Acute health effects

Skin contact Unlikely to cause skin irritation.

Eye contact May cause transient slight irritation.

Inhalation Minimal respiratory tract irritation may occur with exposure to large amounts of toner dust. Use of this product as intended does not result in inhalation of excessive amounts of dust.

Ingestion Low acute toxicity. Ingestion is a minor route of entry for intended use of this product.

Potential health effects

Routes of exposure Potential routes of exposure under normal use conditions are skin and eye contact; and inhalation

Ingestion is not expected to be a primary route of exposure for this product under normal use conditions.

Chronic health effects Prolonged inhalation of excessive amounts of any dust may cause lung damage. Use of this product as intended does not result in inhalation of excessive amounts of dust.

Carcinogenicity Titanium dioxide is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). The IARC classification was based on high concentrations of titanium dioxide particles in animal lungs. Under intended use of this toner product, exposure to titanium dioxide is much lower.

Other information This product is not classified as hazardous according to OSHA CFR 1910.1200 or EU Directive 1999/45/EC, as amended.

This preparation contains no component classified as Persistent, Bioaccumulative, and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) as defined under Regulation (EC) 1907/2006.

Classification Not classified.

Physical hazards Not classified as a physical hazard.

Health hazards Not classified as a health hazard.

Environmental hazards Not classified as an environmental hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Styrene acrylate copolymer	Trade Secret	< 85		
Pigment	Trade Secret	< 10		
Wax	Trade Secret	< 10		

Amorphous silica	7631-86-9	< 3	231-545-4
Titanium dioxide	13463-67-7	< 1	236-675-5

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.

5. FIRE-FIGHTING MEASURES

Fire fighting equipment/instructions	If fire occurs in the printer, treat as an electrical fire.
Suitable extinguishing media	CO2, water, or dry chemical
Extinguishing media which must not be used for safety reasons	None known.
Unusual fire & explosion hazards	Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.
Specific methods	None established.
Hazardous combustion products	Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Minimise dust generation and accumulation.
Environmental precautions	Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.
Other information	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.

7. HANDLING AND STORAGE

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.
Storage	Keep out of the reach of children. Keep tightly closed and dry. Store away from strong oxidizers. Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

United Kingdom

Components	Type	Value	Form
Titanium dioxide (13463-67-7)	TWA	4.0000 mg/m3	Respirable.
		10.0000 mg/m3	Inhalable

Additional exposure data	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)
Exposure controls	Use in a well ventilated area.

Occupational exposure controls

General

No personal respiratory protective equipment required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fine powder
Physical state	Solid
Form	solid
Colour	Cyan
Odour	Slight plastic odor
Odour threshold	Not available.
pH	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not flammable
Vapour pressure	Not applicable
Relative density	Not available.
Solubility (water)	Negligible in water. Partially soluble in toluene and xylene.
Partition coefficient (n-octanol/water)	Not available
Viscosity	Not applicable
Vapour density	Not available.
Evaporation rate	Not applicable
Melting point	Not available.
Freezing point	Not available.
Auto-ignition temperature	Not applicable
Specific gravity	1 - 1.2 (H ₂ O = 1)
Softening point	80 - 130 °C (176 - 266 °F)
Percent volatile	0 % estimated
VOC	Not available.
Other information	Decomposition temperature: > 200 °C

10. STABILITY AND REACTIVITY

Conditions to avoid	Imaging Drum: Exposure to light
Hazardous decomposition products	Carbon monoxide and carbon dioxide.
Stability	Stable under normal storage conditions.
Materials to avoid	Strong oxidizers
Hazardous polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

Oral toxicity	LD50/oral/rat >2000mg/kg; (OECD 401); Not harmful.. Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
Carcinogenicity	Titanium dioxide is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). The IARC classification was based on high concentrations of titanium dioxide particles in animal lungs. Under intended use of this toner product, exposure to titanium dioxide is much lower. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.
Inhalation toxicity	No information available. Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
Serious eye damage/eye irritation	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
Chronic toxicity	No information available.

Sensitisation	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
Mutagenicity	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
Reproductivity	Not classified as toxic according to EU Directive 67/548/EEC and as amended, California Prop. 65, and DFG (Germany).
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 aide measures.

12. ECOLOGICAL INFORMATION

Ecotoxicity	LC50: > 100 mg/l, Fish, 96.00 Hours
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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.
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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.
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15. REGULATORY INFORMATION

Labeling

Contains Amorphous silica, Pigment, Styrene acrylate copolymer, Titanium dioxide, Wax

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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.
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16. OTHER INFORMATION

Other information	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
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Disclaimer	This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company 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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Issue date	28-Mar-2012
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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: <value>	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds