



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name CE311A

Product use This product is a cyan toner preparation that is used in HP Color LaserJet Pro CP1025 and HP LaserJet Pro 100 Color MFP, HP LaserJet Pro 200 Color MFP series printers.

Company identification Hewlett-Packard Japan, Ltd.
2-2-1 Ojima, Koto-ku, Tokyo, 136-8711 Japan
Telephone (+81) 3 6416-6660

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com
Poison Information Centre telephone number 0120-50-3024

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
Styrene acrylate copolymer	Trade Secret	< 85
Pigment	Trade Secret	< 10
Wax	Trade Secret	< 10
Amorphous silica	7631-86-9	< 3
Titanium dioxide	13463-67-7	< 1

4. FIRST AID MEASURES

In Case of 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

Flash point	Not applicable
Extinguishing media	CO ₂ , water, or dry chemical
Extinguishing media to avoid	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.
Special fire fighting procedures	None established.
Protection of fire-fighters	If fire occurs in the printer, treat as an electrical fire.
Hazardous combustion products	Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency measures	Minimise dust generation and accumulation.
Environmental precautions	Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.
Clean-up methods and materials and containment measures	Not available.
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

Technical measures	Not available.
Local and general ventilation	Not available.
Precautions	Not available.
Safe handling advice	Not available.

Storage

Technical measures	Not available.
Suitable storage conditions	Not available.
Incompatible materials	Not available
Safe packaging materials	Not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Japan OELs - JSOH

Components	Type	Value	Form
Titanium dioxide (13463-67-7)	TWA	4.0000 mg/m ³	Total dust.
		1.0000 mg/m ³	Respirable dust.

ACGIH

Components	Type	Value
Titanium dioxide (13463-67-7)	TWA	10.0000 mg/m ³

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)/%SiO ₂ , ACGIH (TWA/TLV): 10 mg/m3
Engineering measures	Use in a well ventilated area.
Personal protective equipment	
Respiratory protection	Not available.
Hand protection	Not available.
Eye protection	Not available.
Skin and body protection	Not available.
General	No personal respiratory protective equipment required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Solid
Form	solid
Colour	Cyan
Odour	Slight plastic odor
pH	Not applicable
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Flammability limit - lower (%)	Not flammable
Flammability limit - upper (%)	Not available.
Vapour pressure	Not applicable
Vapour density	Not available.
Evaporation rate	Not applicable
Specific gravity	1 - 1.2 (H ₂ O = 1)
Solubility	Negligible in water. Partially soluble in toluene and xylene.
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	Not available.
Viscosity	Not applicable
Softening point	80 - 130 °C (176 - 266 °F)
Other data	
Kinematic viscosity	Not available.
Kinematic viscosity temp	Not available.
Percent volatile	0 % estimated
Other information	Decomposition temperature: > 200 °C

10. STABILITY AND REACTIVITY

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

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.
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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.

ACGIH Carcinogens

Titanium dioxide (CAS 13463-67-7)

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Titanium dioxide (CAS 13463-67-7)

2B Possibly carcinogenic to humans.

IARC Monographs: Evidence of carcinogenicity in humans

Titanium dioxide (CAS 13463-67-7)

Inadequate data.

Inhalation toxicity

Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.

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 aid measures.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Product

HP Color LaserJet CE311A Cyan Print Cartridge

Test results

LC50 Fish: > 100 mg/l 96.00 Hours

Components

Titanium dioxide (13463-67-7)

Test results

EC50 Water flea (Daphnia magna): > 1000 mg/l 48.00 hours

LC50 Mummichog (Fundulus heteroclitus): > 1000 mg/l 96.00 hours

Ecotoxicity

LC50: > 100 mg/l, Fish, 96.00 Hours

Other hazardous effects

This product has not been tested for ecological effects.

13. DISPOSAL CONSIDERATIONS

Local disposal regulations

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

Industrial Safety and Health Law

Substances subject to notification

Not regulated.

Poisonous and Deleterious Substances Control Law

Deleterious substances

Not regulated.

Poisonous substances

Not regulated.

Specified poisonous substances

Not regulated.

PRTR and Promotion of Chemical Management Law, old regulated substances (Cabinet Order No. 328, 2004)

Specified class 1 substances (substance name and PRTR no.)

Not regulated.

Class 1 substances (substance name and PRTR no.)

Not regulated.

Class 2 substances (substance name and PRTR no.)

Not regulated.

PRTR and Promotion of Chemical Management Law, new regulated substances (Cabinet Order No. 356, 2008)**Specified class 1 substances (substance name and PRTR no.)**

Not regulated.

Class 1 substances (substance name and PRTR no.)

Not regulated.

Class 2 substances (substance name and PRTR no.)

Not regulated.

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**Other information**

This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

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.

Version number

03

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Alternate Trade Names
CHEMICAL PRODUCT AND COMPANY IDENTIFICATION: Product use
Composition / Information on Ingredients: Ingredients

Issue date

14-Apr-2012

Revision date

14-Apr-2012

Manufacturer information

Hewlett-Packard Company
11311 Chinden Boulevard
Boise, ID 83714 USA
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209

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