MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation HP Color LaserJet CE270A Black Print Cartridge

Product use This product is a black toner preparation that is used in HP Color LaserJet CP5525 series printers

Version # 01

Revision date 13-Apr-2012

Company identification

Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

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

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, 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 Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk.

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.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Styrene acrylate copolymer	Trade Secret	< 85
Carbon black	1333-86-4	< 10

Wax	Trade Secret	< 10
Amorphous silica	7631-86-9	< 3
Titanium dioxide	13463-67-7	< 1

4. First Aid Measures

First aid procedures

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.

Skin contact Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

Inhalation Move person to fresh air immediately. 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

Flammable properties Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.

Extinguishing media

Suitable extinguishing media CO_2, water, or dry chemical

Unsuitable extinguishing media None known.

Protection of firefighters

Protective equipment and precautions for firefighters If fire occurs in the printer, treat as an electrical fire.

Specific methods None established.

Hazardous combustion products Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions Minimize 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

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.0000 mg/m3	Inhalable fraction.
Titanium dioxide (13463-67-7)	TWA	10.0000 mg/m3	

U.S. - OSHA

Components	Type	Value	Form
Titanium dioxide (13463-67-7)	PEL	15.0000 mg/m3	Total dust.

U.S. - Tennessee

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5000 mg/m3	
Titanium dioxide (13463-67-7)	TWA	10.0000 mg/m3	Total dust.

Exposure guidelines 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

Engineering controls Use in a well ventilated area.

Personal protective equipment

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

9. Physical & Chemical Properties

Appearance Fine powder

Color Black.

Odor Slight plastic odor

Odor threshold Not available.

Physical state Solid

Form solid

pH Not applicable

Melting point Not available.

Freezing point Not available.

Boiling point Not applicable

Flash point Not applicable

Evaporation rate Not applicable

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not flammable

Vapor pressure Not applicable

Vapor density Not available.

Specific gravity 1 - 1.2 (H2O = 1)

Relative density Not available.

Solubility (water) Negligible in water. Partially soluble in toluene and xylene.

Auto-ignition temperature Not applicable

Decomposition temperature Not available.

Softening point 176 - 266 °F (80 - 130 °C)

Viscosity Not applicable

Percent volatile Negligible

VOC Not applicable

Other information Decomposition temperature: > 200 ° C

10. Chemical Stability & Reactivity Information

Chemical stability Stable under normal storage conditions.

Conditions to avoid Imaging Drum: Exposure to light

Incompatible materials	Strong oxidizers
Hazardous decomposition products	Carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Oral toxicity

LD50/oral/rat >2000 mg/kg; (OECD 401); Not harmful.. Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.

Carcinogenicity

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation.

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

Carbon black (CAS 1333-86-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
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.

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.

Sensitization

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).

Symptoms and target organs

Target Organs (NIOSH)

Titanium dioxide (CAS 13463-67-7)	Respiratory system

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

Ecotoxicity	LC50: > 100 mg/l, Fish, 96.00 Hours
Persistence and degradability	Not available.

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.

14. Transport Information

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

15. Regulatory Information

US federal regulations US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

State regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Titanium dioxide (CAS 13463-67-7) Listed.

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).

HMIS® ratings Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 1
Instability: 0

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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	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds