



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Material name	HP Color LaserJet Q6470A Black Print Cartridge
Use of the preparation	This product is a black toner preparation that is used in HP Color LaserJet CP3505/3600/3800 series printers.
Version #	03
Revision date	18-Jun-2008
Manufacturer information	Hewlett-Packard Company 11311 Chinden Boulevard Boise, ID 83714 USA
Hewlett-Packard health effects line	
(Toll-free within the US)	1-800-457-4209
(Direct)	1-503-494-7199
General information telephone number	
HP Customer Care Line	1-800-474-6836
(Toll-free)	1-800-474-6836
(Direct)	1-208-323-2551
Date prepared	Jun 18, 2008
MSDS number	287048

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

3. Composition / Information on Ingredients

Component/substance	CAS number	% by weight
Styrene acrylate copolymer	Trade Secret	75 - 85
Wax	Trade Secret	5 - 15
Carbon black	1333-86-4	1 - 6
Amorphous silica	7631-86-9	1 - 2



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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

Flash point and method

Not applicable

Hazardous combustion products

Carbon monoxide and carbon dioxide.

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

CO₂, water, or dry chemical

Unsuitable extinguishing media

None known.

Unusual fire and explosion hazard

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

Protection of firefighters

Protective equipment and precautions for firefighters

If fire occurs in the printer, treat as an electrical fire.

Special firefighting procedures

None established.

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. Store at room temperature. Store away from strong oxidizers. Keep tightly closed and dry.



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8. Exposure Controls/Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Carbon black	1333-86-4	3.5 mg/m ³	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Carbon black	1333-86-4	3.5 mg/m ³	Not established	Not established

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

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Carbon black 1333-86-4 3.5 mg/m³ TWA

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Carbon black 1333-86-4 3.5 mg/m³ TWA

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	Not available
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	Not available.
Flammability limits in air, upper, % by volume	Not available
Flammability limits in air, lower, % by volume	Not flammable
Vapor pressure	Not applicable



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Vapor density	Not applicable
Specific gravity	1 - 1.2 (H ₂ O = 1)
Relative density	Not available
Solubility in water	Negligible in water. Partially soluble in toluene and xylene.
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Softening point	212 - 302 °F (100 - 150 °C)
Viscosity	Not applicable

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.
Inhalation toxicity	No information available. Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
Eye irritation	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
Sensitization	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
Chronic toxicity	No information available.
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. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.
U.S. - OSHA - Hazard Communication Carcinogens	
Carbon black	1333-86-4 Present
Mutagenicity	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
Reproductive toxicity	Not classified as toxic according to EU Directive 67/548/EEC and as amended, California Prop. 65, and DFG (Germany).



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Symptoms and target organs

NIOSH - Pocket Guide - Target Organs

Carbon black

1333-86-4

respiratory system, eyes (lymphatic cancer in presence of PAHs)

12. Ecological Information

Ecotoxicity 96.00 Hours, LL50 > 1000 mg/l, rainbow trout

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. Transportation Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

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

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

International regulations 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.

State regulations

U.S. - California - Proposition 65 - Carcinogens List

Carbon black

1333-86-4

carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)

U.S. - Pennsylvania - RTK (Right to Know) List

Carbon black

1333-86-4

Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Carbon black

1333-86-4

sn 0342

Material name Q6470A

Creation date Oct 17, 2005

Version number 3

MSDS US

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16. Other Information

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Issue date

Jun 18 2008 5:24AM

Revision

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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.

MSDS sections updated

1. Chemical Product and Company Identification: Use of the preparation
3. Hazards Identification: Other information
7. Handling and Storage: Storage
12. Ecological Information: Ecotoxicity effects
12. Ecological Information: Other information
15. Regulatory Information: US federal regulations

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