



# Safety Data Sheet

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

**Identification of the substance/preparation** HP FBD6KC Black Developer

**Use of the preparation** This product is a black developer preparation that is used in HP 9850mfp series digital copiers.

**Revision date** 05-May-2009

**Company identification** Hewlett-Packard, Ltd.  
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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.

**Ingestion** Low acute toxicity. Unlikely to cause irritation under normal use conditions.

**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.

**Physical hazards** Not classified as a physical hazard.

**Health hazards** Not classified as a health hazard.

**Environmental hazards** Not classified as an environmental hazard.

**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	EU number	EU classification
<b>Toner</b>				
Styrene acrylate copolymer	Trade secret	< 90		
Wax	Trade secret	< 20		
Amorphous silica	7631-86-9	< 10	231-545-4	
Carbon black	1333-86-4	< 10	215-609-9	
Strontium titanate	12060-59-2	< 10	235-044-1	



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## Carrier

Iron oxide	1317-61-9	< 50	215-277-5
Magnesium oxide Fume	1309-48-4	< 40	215-171-9
Acrylic Resin	Trade secret	< 10	
Manganese oxide (MnO)	1344-43-0	< 10	215-695-8

## 4. FIRST AID MEASURES

<b>Inhalation</b>	Move person to fresh air immediately. If irritation persists, consult a physician.
<b>Skin contact</b>	Wash affected areas with soap and water. If irritation persists, consult a physician.
<b>Eye contact</b>	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, consult a physician.
<b>Ingestion</b>	Rinse mouth out with water. Drink one to two glasses of water. If symptoms occur, consult a physician.

## 5. FIRE-FIGHTING MEASURES

<b>Flash point and method</b>	Not applicable
<b>Fire fighting equipment/instructions</b>	If fire occurs in the printer, treat as an electrical fire.
<b>Suitable extinguishing media</b>	CO <sub>2</sub> , water, or dry chemical
<b>Extinguishing media which must not be used for safety reasons</b>	None known.
<b>Unusual fire &amp; explosion hazards</b>	Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.
<b>Hazardous combustion products</b>	Carbon monoxide and carbon dioxide.
<b>Specific methods</b>	None established.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Minimize dust generation and accumulation.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

## 7. HANDLING AND STORAGE

<b>Handling</b>	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.
<b>Storage</b>	Keep out of the reach of children. Store at room temperature in the original container. Keep the container tightly closed and dry. Store away from strong oxidizers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### Belgium

Components	Type	Value	Form
Amorphous silica (7631-86-9)	TWA	10 mg/m <sup>3</sup>	
Carbon black (1333-86-4)	TWA	3.6 mg/m <sup>3</sup>	
Magnesium oxide Fume (1309-48-4)	TWA	10 mg/m <sup>3</sup>	Fume.
Manganese oxide (MnO) (1344-43-0)	TWA	0.2 mg/m <sup>3</sup>	



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## Denmark

Components	Type	Value
Carbon black (1333-86-4)	TLV	3.5 mg/m <sup>3</sup>
Magnesium oxide Fume (1309-48-4)	TLV	6 mg/m <sup>3</sup>
Manganese oxide (MnO) (1344-43-0)	TLV	0.2 mg/m <sup>3</sup>

## France

Components	Type	Value	Form
Carbon black (1333-86-4)	VME	3.5 mg/m <sup>3</sup>	
Magnesium oxide Fume (1309-48-4)	VME	10 mg/m <sup>3</sup>	Fume.

## Germany

Components	Type	Value	Form
Amorphous silica (7631-86-9)	AGW	4 mg/m <sup>3</sup>	Inhalable fraction.
Magnesium oxide Fume (1309-48-4)	AGW	3 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Inhalable dust.
Manganese oxide (MnO) (1344-43-0)	AGW	0.5 mg/m <sup>3</sup>	Inhalable fraction.

## Italy

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5 mg/m <sup>3</sup>	
Magnesium oxide Fume (1309-48-4)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
Manganese oxide (MnO) (1344-43-0)	TWA	0.2 mg/m <sup>3</sup>	

## Netherlands

Components	Type	Value
Carbon black (1333-86-4)	Ceiling	3.5 mg/m <sup>3</sup>
Manganese oxide (MnO) (1344-43-0)	Ceiling	1 mg/m <sup>3</sup>
	STEL	3 mg/m <sup>3</sup>

## Spain

Components	Type	Value	Form
Amorphous silica (7631-86-9)	TWA	10 mg/m <sup>3</sup>	
Carbon black (1333-86-4)	TWA	3.5 mg/m <sup>3</sup>	
Magnesium oxide Fume (1309-48-4)	TWA	10 mg/m <sup>3</sup>	Dust and fume.
Manganese oxide (MnO) (1344-43-0)	TWA	0.2 mg/m <sup>3</sup>	

## Sweden

Components	Type	Value	Form
Manganese oxide (MnO) (1344-43-0)	TWA	0.2 mg/m <sup>3</sup>	Total dust.
		0.1 mg/m <sup>3</sup>	Respirable dust.

## Switzerland

Components	Type	Value	Form
Magnesium oxide Fume (1309-48-4)	TWA	3 mg/m <sup>3</sup>	Fume and respirable dust.
		3 mg/m <sup>3</sup>	Respirable dust.
Manganese oxide (MnO) (1344-43-0)	TWA	0.5 mg/m <sup>3</sup>	Inhalable dust.



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## Additional exposure data

USA OSHA (TWA/PEL): 15 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable Fraction)  
ACGIH (TWA/TLV): 10 mg/m<sup>3</sup> (Inhalable Particulate), 3 mg/m<sup>3</sup> (Respirable Particulate)  
TRGS 900 (Luftgrenzwert) - mg/m<sup>3</sup> (Einatembare partikel), mg/m<sup>3</sup> (Alveolengängige fraktion)  
Amorphous silica: USA OSHA (TWA/PEL): 20 mppcf 80 (mg/m<sup>3</sup>)/%SiO<sub>2</sub>, ACGIH (TWA/TLV): 10 mg/m<sup>3</sup>

## Personal protective equipment

### General

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fine powder
Physical state	Not available.
Form	solid
Color	Black
Odor	Slight plastic odor
Odour threshold	Not available.
pH	Not applicable
Boiling point	Not applicable
Flash point	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
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 <i>Carrier</i> Not available. <i>Toner</i> Not available.
Vapor density	Not applicable
Evaporation rate	Not applicable <i>Carrier</i> Not available. <i>Toner</i> Not available.
Melting point	Not available.
Freezing point	Not available.
Auto-ignition temperature	Not applicable
Specific gravity	5 (H <sub>2</sub> O = 1)
Softening point	100 - 150 °C (212 - 302 °F)

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## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal storage conditions.



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<b>Materials to avoid</b>	Strong oxidizers
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide.
<b>Hazardous polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

<b>Component analysis - LD50</b>	Amorphous silica: LD50:orl-rat: 3160 mg/kg, not harmful. Ames test negative.
<b>Inhalation toxicity</b>	LC50: inh/rat 5690 mg/l/4 hrs., (OECD 403).  Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
<b>Oral toxicity</b>	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.
<b>Eye irritation</b>	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
<b>Chronic toxicity</b>	No information available.
<b>Sensitization</b>	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
<b>Carcinogenicity</b>	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.
<b>Mutagenicity</b>	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
<b>Reproductivity</b>	Not classified as toxic according to EU Directive 67/548/EEC and as amended, California Prop. 65, and DFG (Germany).
<b>Further information</b>	Complete toxicity data are not available for this specific formulation Refer to Section 3 for potential health effects and Section 4 for first aide measures.

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## 12. ECOLOGICAL INFORMATION

<b>Other adverse effects</b>	This product has not been tested for ecological effects.
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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
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## 14. TRANSPORT INFORMATION

<b>General</b>	Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.
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## 15. REGULATORY INFORMATION

<b>International regulations</b>	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.
<b>Labeling</b>	
<b>Contains</b>	Amorphous silica, Carbon black, Iron oxide, Magnesium oxide Fume, Manganese oxide (MnO), Styrene acrylate copolymer, Wax



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## 16. OTHER INFORMATION

<b>Manufacturer information</b>	Hewlett-Packard Company 11311 Chinden Boulevard Boise, ID 83714 USA (Direct) 1-503-494-7199 (Toll-free within the US) 1-800-457-4209
<b>Other information</b>	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
<b>Disclaimer</b>	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.
<b>Issue date</b>	05-May-2009
<b>This data sheet contains changes from the previous version in section(s):</b>	HAZARDS IDENTIFICATION: Other information
<b>Explanation of abbreviations</b>	

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-term exposure limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds