Material Safety Data Sheet

1. Product and Company Identification

Material name	HP E5A5KC Developer
Use of the preparation	This product is a developer preparation that is used in HP 9085mfp series digital copiers.
Version #	04
Revision date	05-May-2009
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: hpcustomerinquiries@hp.com
Date prepared	May 04, 2009
MSDS number	425385

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	None of the ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP, OSHA or ACGIH.
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
Toner		
Styrene acrylate copolymer	Trade Secret	< 90
Carbon black	1333-86-4	< 12
Wax	Trade Secret	< 12
Amorphous silica	7631-86-9	< 1
Titanium dioxide	13463-67-7	< 1

Carrier		
Iron oxide	1317-61-9	< 70
Manganese oxide (MnO)	1344-43-0	< 30
Magnesium Oxide Fume	1309-48-4	< 10
Silicone resin	Trade Secret	< 1
Strontium oxide	1314-11-0	< 1

4. First Aid Measures

First aid procedures

Eye contact Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, consult a physician.

Skin contact Wash affected areas with soap and water. If irritation persists, consult a physician.

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 CO_2, 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 in the original container. Keep the container tightly closed and dry. Store away from strong oxidizers.

8. Exposure Controls / Personal Protection

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
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	212 - 302 °F (100 - 150 °C) (Softening point)
Freezing point	Not available.
Boiling point	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable *Carrier* Not available. *Toner* Not available.
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
Vapor density	Not applicable
Specific gravity	1.2 (H2O = 1) *Carrier* Not available. *Toner* Not available.
Relative density	Not available.
Solubility (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. *Carrier* Not available. *Toner* Not available.
Softening point	212 - 302 °F (100 - 150 °C)

Viscosity	Not applicable
Other information	Decomposition temperature: > 200 degrees C

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal storage conditions.
Incompatible materials	Strong oxidizers
Hazardous decomposition products	Carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Component analysis - LD50	Amorphous silica: LD50: oral/rat: 3160 mg/kg, not harmful. Ames test negative. Titanium dioxide: LD50:orl-rat>5000 mg/kg, not harmful. Ames test negative, not an eye irritant, not a skin irritant, and not a skin sensitizer.
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	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.
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.
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).

12. Ecological Information

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

Not available.

General	Not a regulated article under United States 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

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.

16. Other Information

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

NFPA ratings
Health: 1
Flammability: 1
Instability: 0

Issue date
May 4 2009 5:33PM

Revision
4

Replaces sheet dated
Mar 9 2007 2:01PM

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

Disclaimer
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MSDS sections updated
Hazards Identification: Other information
8. Exposure Controls / Personal Protection: Exposure guidelines
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