



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name HP LaserJet CE278A-AC-AD-AF Print Cartridge
Version # 01
Issue date 18-Oct-2013
Product use This product is a toner preparation that is used in HP LaserJet Pro M1536/P1566/P1606 series printers.
Company identification Hewlett-Packard Company
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2. Hazards Identification

Potential health effects

Eyes May cause transient slight irritation

Skin Unlikely to cause skin 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.

Other hazards None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA. 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

Non-hazardous components	CAS #	Percent
Styrene acrylate copolymer	Trade Secret	<55
Ferrite	Trade Secret	<45
Wax	Trade Secret	<10

4. First Aid Measures

General advice No information

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.
Fire fighting equipment/instructions	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 at room temperature. Store away from strong oxidizers.

8. Exposure Controls / Personal Protection

Exposure guidelines	USA OSHA (TWA/PEL): 15 mg/m ³ (Total Dust), 5 mg/m ³ (Respirable Fraction) ACGIH (TWA/TLV): 10 mg/m ³ (Inhalable Particulate), 3 mg/m ³ (Respirable Particulate)
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
Physical state	Solid.
Form	solid
Color	Black.
Odor	Slight plastic odor
pH	Not applicable
Vapor pressure	Not applicable
Boiling point	Not applicable
Melting point/Freezing point	Not available.
Solubility (water)	Negligible in water. Partially soluble in toluene and xylene.
Specific gravity	1.4 - 1.8
Flash point	Not applicable
Viscosity	Not applicable
Percent volatile	Negligible
Softening point	212 - 302 °F (100 - 150 °C)

VOC	Not applicable
Other information	No information available
Other data	
Decomposition temperature	> 392 °F (> 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

Sensitization	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
Chronic effects	No information available.
Carcinogenicity	None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.
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.
Mutagenicity	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
Reproductive effects	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	Species	Test Results
CE278A-AC-AD-AF Fish	LL50 Fish	> 1000 mg/l, 96 Hours
Ecotoxicity	LL50: > 1000 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 .
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14. Transport Information

DOT	Not regulated as dangerous goods.
IATA	
UN number	UN2807
UN proper shipping name	Magnetized Material
IMDG	Not regulated as dangerous goods.
RID	Not regulated as dangerous goods.

Further information 105 or more of these cartridges shipped together in a single package (e.g., box, container), by air, are regulated as a magnetized material. These requirements do not apply to single or dual pack cartridges contained in an original HP package and shrink wrapped on a pallet for shipment by air.

15. Regulatory Information

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

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

Other 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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

State regulations Not applicable.

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Rhode Island RTK

Not regulated.

16. Other Information

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

NFPA ratings Health: 1
Flammability: 1
Instability: 0

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

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

Manufacturer information

1. Product and Company Identification: Alternate Trade Names
Hazards Identification: Other hazards
Physical & Chemical Properties: Multiple Properties
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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