MATERIAL SAFETY DATA SHEET

DRAFT VERSION

1. Product and Company Identification

Identification of the preparation HP Color LaserJet CF212A Yellow Print Cartridge

Product use This product is a yellow toner preparation that is used in HP LaserJet Pro 200 color M251 and HP LaserJet Pro 200 color MFP M276 series printers.

Version # 00

Revision date 21-May-2012

Company identification

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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. 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 and 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 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
Wax	Trade Secret	< 10
Pigment	Trade Secret	< 5

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
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
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	Yellow
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	0 % estimated
VOC	Not available.
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 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

Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous silica (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.
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 No information available.

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)

Amorphous silica (CAS 7631-86-9)	Eyes Respiratory system
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
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
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.
Issue date	21-May-2012
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