



invent

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification of the preparation

HP Color LaserJet C4194A Yellow Print Cartridge

Use of the preparation

This product is a yellow toner preparation that is used in HP Color LaserJet 4500/4550 series printers.

Manufacturer information

Hewlett-Packard Company
11311 Chinden Boulevard
Boise, ID 83714 USA

Hewlett-Packard health effects line

(Toll-free within the US)
(Direct) 1-800-457-4209
1-503-494-7199

General information telephone number

HP Customer Care Line
(Toll-free) 1-800-474-6836
(Direct) 1-800-474-6836
1-208-323-2551

Date prepared

Mar 01, 2007

MSDS number

198091

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component/substance	CAS number	% by weight
Styrene acrylate copolymer	Trade Secret	60 - 80
Wax	Trade Secret	5 - 15
Polyester resin	Trade Secret	5 - 10
Pigment	Trade Secret	5 - 10
Titanium dioxide	Trade Secret	5 - 10
	13463-67-7	< 0.5

3. 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

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, and as amended.



invent

MATERIAL SAFETY DATA SHEET

1. FIRST AID MEASURES

First aid procedures

Skin

Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

Eye

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.

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

Auto ignition temperature

Not applicable

Hazardous combustion products

Carbon monoxide and carbon dioxide.

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.

Fire fighting equipment/instructions

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. Avoid breathing dust.

Environmental precautions

Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

Procedures if material is released or spilled

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 limit values

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)

OSHA - Final PELs - Time Weighted Averages (TWAs)

Titanium dioxide 13463-67-7 15 mg/m³ TWA (total dust)

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

Titanium dioxide 13463-67-7 10 mg/m³ TWA

Material name C4194A

Creation date Oct 19, 2004

Version number 4

MSDS US

2 / 5



invent

MATERIAL SAFETY DATA SHEET

Personal protective equipment

- General** No personal respiratory protective equipment required under normal conditions of use.
- Exposure guidelines** Use in a well ventilated area.

9. PHYSICAL & CHEMICAL PROPERTIES

- pH** Not applicable
- Vapor pressure** Not applicable
- Boiling point** Not applicable
- Melting point** No information available.
- Softening point** 100 - 150 °C (212.0 - 302.0 °F)
- Solubility** Negligible in water. Partially soluble in toluene and xylene.
- Specific gravity** 1 - 1.2 (H₂O = 1)
- Flash point** Not applicable
- Viscosity** Not applicable
- Vapor density** Not applicable
- Evaporation rate** Not applicable
- Flammability** Not flammable
- Appearance** Fine powder
- Form** solid
- Odor** Slight plastic odor
- Oxidizing properties** No information available.
- Other information** Decomposition temperature: > 200 ° C
- Color** Yellow

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

- Stability** Stable under normal storage conditions.
- Hazardous polymerization** Will not occur.
- Hazardous decomposition products** Carbon monoxide and carbon dioxide.
- Incompatibility** Strong oxidizers

11. TOXICOLOGICAL INFORMATION

Complete toxicity data are not available for this specific formulation
Refer to Section 3 for potential health effects and Section 4 for first aid measures.

- Dermal irritation** Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
- 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.
- Oral toxicity** LD50/oral/rat >2000 mg/kg , Not harmful. (OECD 401)



invent

MATERIAL SAFETY DATA SHEET

Inhalation toxicity

LC50: inh/rat 5 mg/l/4 hrs., (OECD 403).

Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.

Carcinogenicity

Not a known or suspected carcinogen according to any IARC Monograph, NTP, OSHA Regulations (USA), EU Directive, or Proposition 65 (California).

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).

Symptoms and target organs

NIOSH - Pocket Guide - Target Organs

Titanium dioxide 13463-67-7 respiratory system (in animals: lung tumors)

12. ECOLOGICAL INFORMATION

Environmental fate

Bioaccumulation

Titanium dioxide: Not bioaccumulated.

Other information

No data available for ecological and wastewater treatment (sewage) systems.

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

General

Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.

15. REGULATORY INFORMATION

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.

US federal regulations

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

US TSCA 12(b): Contains p-Xylene (CAS No. 106-42-3), subject to export notification requirements.

HMIS ratings

Health: 1
Flammability: 1
Physical hazard: 0
Health: 1
Flammability: 1
Instability: 0

NFPA ratings

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No



invent

MATERIAL SAFETY DATA SHEET

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

16. OTHER INFORMATION

Other information

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

Issue date

Mar 1 2007 1:11PM

Revision

3

Replaces sheet dated

Nov 8 2006 6:52AM

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: Routes of exposure
8. Exposure Controls/Personal Protection: Exposure limit values
9. Physical & Chemical Properties: Other information
11. Toxicological Information: Inhalation toxicity
13. Disposal Considerations: Disposal instructions
15. Regulatory Information: State 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