

Canon

MATERIAL SAFETY DATA SHEET

Date of preparation: December 22, 1994

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

PRODUCT NAME: Apple Color Laser Writer Setup Kit (Toner Cartridge Yellow)
 ITEM NO: R74-3001-120
 DESCRIPTION: An assembly for laser beam printer, composed of toner powder and a developer unit. The toner powder cannot be removed, until the cartridge is forced to be broken.

1.2 COMPANY/UNDERTAKING IDENTIFICATION

MANUFACTURER: Canon Inc.
 30-2, Shimomaruko 3-Chome, Ohta-Ku
 Tokyo Japan
 Phone: 03-3758-2111

DISTRIBUTOR:

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS OF TONER

<u>Principal Components (CAS No.)</u>	<u>wt%</u>	<u>EU¹⁾</u>	<u>OSHA²⁾</u>	<u>ACGIH³⁾</u>	<u>DFG⁴⁾</u>
Polyester resin	85 - 95	---	---	---	---
Pigment	1 - 5	---	---	---	---
Titanium dioxide (13463-67-7)	< 2	---	15 mg/m ³	10 mg/m ³	6 mg/m ³
(Total dust: TWA) (TWA ⁵⁾)					

---: Not designated.

(See SECTION 8 for Exposure Limits.)

SECTION 3 HAZARDS IDENTIFICATION OF TONER

POTENTIAL HEALTH EFFECTS:

INGESTION: Ingestion is not applicable route of entry for intended use.

- INHALATION:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.
- EYE CONTACT:** May cause eye irritation.
- SKIN CONTACT:** Unlikely to cause skin irritation.

SECTION 4 FIRST AID MEASURES ON TONER

- INGESTION:** Dilute stomach contents with several glasses of water.
- INHALATION:** Remove victim to fresh air.
- EYE CONTACT:** Flush with running water for at least 15 minutes.
- SKIN CONTACT:** Wash with soap and water.

SECTION 5 FIRE FIGHTING MEASURES ON TONER

- FLASH POINT(Method used):** No data available
- IGNITION TEMPERATURE:** No data available
- FLAMMABILITY:** Non-flammable solid (According to test methods of USA 16 CFR 1500.44 and 84/449/EEC (Annex V) A.10.)
- FLAMMABLE LIMITS:** No data available
- EXTINGUISHING MEDIA:** CO₂, water, dry chemicals
- SPECIAL FIRE FIGHTING PROCEDURES:** None
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** Toner material, like most organic material in powder form, is capable of creating a dust explosion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

No toner spillage occurs in normal operation or handling. If it should occur, avoid inhalation of the dust. Sweep material onto paper and carefully transfer to a sealable waste container.

SECTION 7 HANDLING AND STORAGE

Keep out of reach of children.
Keep away from contact with oxidizing materials.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

- USA OSHA(TWA/PEL):** 15 mg/m³ (Total dust)
5 mg/m³ (Respirable fraction)
- ACGIH(TWA/TLV):** 10 mg/m³ (Total dust)
- DFG(MAK):** 6 mg/m³ (Feinstaubkonzentration)
- (Also refer to SECTION 2.)

RESPIRATORY PROTECTION: Not required under intended use.
VENTILATION: Good general ventilation should be sufficient under intended use.
PROTECTIVE GLOVES: Not required under intended use.
EYE PROTECTION: Not required under intended use.
OTHER PROTECTIVE EQUIPMENT: Not required under intended use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES OF TONER

BOILING POINT: Not applicable
MELTING POINT: 100 - 150 °C
VAPOR PRESSURE (mmHg.): Not applicable
VAPOR DENSITY (AIR=1): Not applicable
SOLUBILITY IN WATER: Negligible
SOLUBILITY IN ORGANIC SOLVENTS: Partially soluble in toluene and xylene.
SPECIFIC GRAVITY (H₂O=1): 1.0 - 1.4
PERCENT VOLATILE BY VOLUME: Not applicable
EVAPORATION RATE (BUTYL ACETATE=1): Not applicable
pH: Not applicable
APPEARANCE AND ODOR: Yellow fine powder, slight plastic odor.

SECTION 10 STABILITY AND REACTIVITY OF TONER

STABILITY: Stable
INCOMPATIBILITY OF TONER: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:
Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION ON TONER

ACUTE TOXICITY (Data from similar toner material):
INGESTION: Oral LD₅₀: > 5,000 mg/kg (rat)
EYE CONTACT: Result to the rabbit is not classified as irritant based on OSHA HCS and EEC Directive 67/548/EEC.
SKIN CONTACT: Result to the rabbit is not classified as irritant based on OSHA HCS and EEC Directive 67/548/EEC.
Chronic toxicity: No data available
Other toxicity data:
Mutagenicity: Negative (Ames Test: *Salmonella typhimurium*)
CARCINOGENICITY:
No carcinogen or potential carcinogen, according to IARC Monographs⁶), NTP⁷), OSHA(USA) regulation and EU Directive.

SECTION 12 ECOLOGICAL INFORMATION

No data are available as to its effects on the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

This product is constructed from plastics and metals. The waste toner could be considered as plastic waste. Disposal should be subject to federal, state or local laws.

SECTION 14 TRANSPORT INFORMATION

INTERNATIONAL TRANSPORT INFORMATION:

UN NO.: None
HAZARDS CLASS: None
PACKING GROUP: None
SPECIAL PRECAUTIONS: None

SECTION 15 REGULATORY INFORMATION

CHEMICALS REQUIRED TO REPORT UNDER SARA TITLE III §313 (USA):

Chromium (III) and Compounds	5 wt % (Maximum)
(As chromium (III) metal	0.5 wt % (Maximum))

LABEL INFORMATION ACCORDING TO THE DIRECTIVES 88/379/EEC AND 67/548/EEC (EU):

SYMBOL AND INDICATIONS: Not required.
R PHRASES: Not required.
S PHRASES: Not required.

DANGEROUS COMPONENT(CAS No.) wt%

None

OTHER: None

SPECIFIC PROVISIONS IN RELATION TO PROTECTION OF MAN OR THE ENVIRONMENT (EU):

REGULATION(EEC)2455/92: Not regulated.
DIRECTIVE 76/769/EEC: Not regulated.
OTHER: None

SECTION 16 OTHER INFORMATION

This information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any other process. It is based on the level of our knowledge as of the date of preparation.

Abbreviations

- 1) "EU" stands for ILV (Indicative Limit Value) under EU Directive 91/322/EEC.
- 2) "OSHA" stands for PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.
- 3) "ACGIH" stands for TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
- 4) "DFG" stands for MAK (Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.
- 5) "TWA" stands for Time Weighted Average.
- 6) "IARC" stands for International Agency for Research on Cancer.
- 7) "NTP" stands for National Toxicology Program (USA).