

**Canon**

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**MATERIAL SAFETY DATA SHEET**

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**Manufacturer:** Canon Inc.  
30-2, Shimomaruko 3-Chome, Ohta-ku  
Tokyo Japan  
Phone: 03-3758-2111

**Distributor:** Canon Australia Pty Ltd  
1 Thomas Holt Drive  
North Ryde N.S.W 2113  
Phone (02) 9805-2000

Date of preparation: December 16, 1993

Revised: January 29, 2002

**SECTION 1 IDENTIFICATION****PRODUCT NAME:** FX-2 Cartridge

**DESCRIPTION:** An assembly for facsimile, composed of a photosensitive drum, toner powder, a developer unit, a charger-roller and a cleaner blade.  
The toner powder cannot be removed, until the cartridge is forced to be broken.

**ITEM NO:** H11-6321**SECTION 2 INGREDIENTS OF TONER**

<u>Principal Components(CAS No.)</u>	<u>wt%</u>	<u>USA</u>		
		<u>OSHA<sup>1)</sup></u>	<u>ACGIH<sup>2)</sup></u>	<u>DFG<sup>3)</sup></u>
Styrene acrylate copolymer	45 - 55	---	---	---
Iron oxide (1317-61-9)	45 - 55	---	---	---

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**SECTION 3 PHYSICAL DATA 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 (H<sub>2</sub>O=1): 1.5 - 1.8  
PERCENT VOLATILE BY VOLUME: Not applicable  
EVAPORATION RATE (BUTYL ACETATE=1): Not applicable  
pH IN CONCENTRATE: Not applicable  
pH IN DILUTION AS USED: Not applicable  
APPEARANCE AND ODOR: Fine powder, slight plastic odor.

#### SECTION 4 FIRE AND EXPLOSION HAZARD DATA OF 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: CO<sub>2</sub>, 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 5 HEALTH HAZARD DATA OF TONER

EXPOSURE LIMITS:  
USA OSHA(TWA<sup>4</sup>)/PEL): 15 mg/m<sup>3</sup> (Total dust)  
5 mg/m<sup>3</sup> (Respirable fraction)  
ACGIH(TWA/TLV): 10 mg/m<sup>3</sup> (Total dust)  
DFG(MAK): 6 mg/m<sup>3</sup> (Feinstaubkonzentration)  
Also refer to SECTION 2.

#### EFFECTS OF OVEREXPOSURE:

Ingestion: Ingestion is not applicable route of entry for ordinary 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: Overexposure is unlikely to cause skin irritation.

#### EMERGENCY AND FIRST AID PROCEDURES:

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.

#### TOXICITY DATA:

Acute toxicity:

Ingestion: Oral LD<sub>50</sub>: >5000 mg/kg (rats)  
No adverse effect is expected.

Inhalation: No data available

Eye contact: Not classified as irritant, according to OSHA  
Hazard Communication Standard(HCS) and EC  
Directive 67/548/EEC based on test data of rabbit.

Skin contact: Not classified as irritant, according to OSHA  
Hazard Communication Standard(HCS) and EC  
Directive 67/548/EEC based on test data of rabbit.

Chronic toxicity: No data available

Other toxicity data:

Mutagenicity: Negative (Test species: *Salmonella typhimurium*)

CARCINOGENICITY:  
No carcinogen or potential carcinogen, according to IARC  
Monographs<sup>5</sup>), NTP<sup>6</sup>), OSHA(USA) regulation and EC Directive.

#### SECTION 6 REACTIVITY DATA 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 7 SAFE USE OR HANDLING

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:  
No toner spillage occurs in normal operation or handling. If it  
should occur, avoid inhalation of the dust. Sweep material onto paper  
or collect it.

WASTE DISPOSAL METHOD:  
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 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Not required.

VENTILATION: Good general ventilation should be  
sufficient.

PROTECTIVE GLOVES: Not required.

EYE PROTECTION: Not required.

OTHER PROTECTIVE EQUIPMENT: Not required.

## SECTION 9 SPECIAL PRECAUTIONS

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

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

## SECTION 10 USA INFORMATION

### CHEMICALS REQUIRED TO REPORT UNDER SARA TITLE III §313:

None

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### Abbreviations

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

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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.