

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

**Product Name:** Canon Cartridge 320 Starter (for Multi Function Printer)  
**Product Code:** R00-6013  
**Manufacturer:** Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan Ph # 03-3758-2111  
**Supplier:** Canon U.S.A., Inc. One Canon Park, Melville, NY 11747, USA  
**Phone # :** 1-800-OK-CANON 24 Hr. Emergency CHEMTREC # 1-800-424-9300

**SECTION 2 HAZARDS IDENTIFICATION**

**EU Classification:** Not classified as dangerous.

**Emergency Overview:** Black fine powder, slight plastic odor.

**Potential Health Effects and Symptoms:**

**Inhalation:**

Exposure to excessive amounts of dust may cause physical irritation to respiratory tract.

**Ingestion:**

Low acute toxicity. Ingestion is a minor route of entry for intended use of this product.

**Eye:**

May cause transient slight irritation.

**Skin:**

May be non-irritant.

**Chronic Effects:**

Prolonged inhalation of excessive amounts of dust may cause lung damage. Use of this product as intended does not result in inhalation of excessive amounts of dust.

**Medical Conditions Generally known to be Aggravated by Exposure:**

Not determined

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

**< Ingredient(s) >**

Chemical Name / Generic Name	CAS # / EC #	Weight %	EU Symbol/ R-Phrase	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Styrene acrylate copolymer	Confidential	45-55	None/ None	Not established	Not established	Not established	Not established
Ferrite including zinc	Confidential	40-50 (as Zn: 0-0.7)	None/ None	Not established	Not established	Not established	Not established
Amorphous silica	7631-86-9/ 231-545-4	1-2	None/ None	20 mppcf, 80 (mg/m <sup>3</sup> )/%SiO <sub>2</sub>	Not established	Not established	4 mg/m <sup>3</sup> (Inhalable fraction)

**< Carcinogen >**

No component of this toner is listed as a human carcinogen or a potential carcinogen in IARC Monographs, NTP, OSHA regulations or Annex I to Directive 67/548/EEC.

**< PBT substance and vPvB substance >**

No component of this toner is a PBT or vPvB substance under Regulation (EC)1907/2006.

## SECTION 4 FIRST AID MEASURES

### First Aid Measures:

#### Inhalation:

If symptoms are experienced, move victim to fresh air and obtain medical advice.

#### Ingestion:

Rinse mouth. Drink 1 or 2 glasses of water. If irritation or discomfort occurs, obtain medical advice immediately.

#### Eye:

Do not allow victim to rub eye(s). Flush with lukewarm, gently flowing water for 5 minutes or until particle is removed. If irritation persists, obtain medical attention.

#### Skin:

Wash with soap and water. If irritation persists, obtain medical advice.

### Note to Physicians:

None

## SECTION 5 FIRE FIGHTING MEASURES

### Fire Fighting Measures:

#### Extinguishing Media:

CO2, water, dry chemicals

#### Unsuitable Extinguishing Media:

None

#### Special Fire Fighting Procedures:

None

#### Unusual Fire and Explosion Hazards:

Can form explosive dust-air mixtures when finely dispersed in air.

### Fire and Explosive Properties (See also SECTION 9):

#### Hazardous Combustion Products:

CO2, CO

#### Other Properties:

Not available

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Avoid breathing dust.

### Environmental Precautions:

Do not wash away into sewer.

### Method for Cleaning Up:

Sweep slowly spilled powder on to paper, and carefully transfer into a waste container. Clean remainder with wet paper, wet cloth or a vacuum cleaner.

If a vacuum cleaner is used, it must rate as a dust explosion-proof type. Fine powder can form explosive dust-air mixtures.

## SECTION 7 HANDLING AND STORAGE

### Handling:

Avoid breathing dust.

Use with adequate ventilation.

### Storage:

Keep out of the reach of children.

Keep away from oxidizing materials.

### Specific Uses:

Toner for electrophotographic apparatus.

For more information, please refer to the instruction of this product.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines:

USA OSHA PEL (TWA): 15 mg/m<sup>3</sup> (Total dust), 5 mg/m<sup>3</sup> (Respirable fraction)  
ACGIH TLV (TWA): 10 mg/m<sup>3</sup> (Inhalable fraction), 3 mg/m<sup>3</sup> (Respirable fraction)  
DFG (MAK): 4 mg/m<sup>3</sup> (Inhalable fraction), 1.5 mg/m<sup>3</sup> (Respirable fraction)  
(Also refer to SECTION 3)

### Engineering Controls:

Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne concentrations below the exposure limits.

### Personal Protection Equipment(s):

**Respiratory Protection:** ☐ Required  
☒ Not Required  
**Eye/Face Protection:** ☐ Required  
☒ Not Required  
**Skin Protection:** ☐ Required  
☒ Not Required

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Black fine powder  
**Odor:** Slight plastic odor  
**pH:** Not applicable  
**Boiling Point/Range(°C):** Not applicable  
**Melting Point/Range(°C):** 100-150 (Softening point)  
**Decomposition Temperature(°C):** > 200  
**Flash Point(°C):** Not applicable  
**Flammable (Explosive) Limits:** Not applicable  
**Autoignition Temperature(°C):** Not available  
**Flammability:** Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids))  
**Explosive Properties:** Can form explosive dust-air mixtures when finely dispersed in air.  
**Oxidizing Properties:** Not available  
**Vapor Pressure:** Not applicable  
**Vapor Density:** Not applicable  
**Density / Specific Gravity:** 1.4-1.8  
**Water Solubility:** Negligible  
**Fat Solubility:** Partially soluble in toluene and xylene.  
**Partition Coefficient (n-Octanol/Water):** Not applicable  
**Percent Volatile:** Negligible  
**Evaporation Rate:** Not applicable  
**Viscosity (mPa s):** Not applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Stability:** ☒ Stable  
☐ Unstable

**Conditions to Avoid:** None

**Materials to Avoid:** Strong oxidizers

**Hazardous Decomposition Products:** CO, CO2

**Hazardous Polymerization:** ☐ May Occur  
☒ Will Not Occur

**Conditions to Avoid:** None

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Acute Toxicity:**

**Inhalation:**  
Not available

**Ingestion:**  
Estimate: Rat, LD50 > 2000 mg/kg (See SECTION 16)

**Eye:**  
Estimate: Rabbit, transient slight conjunctival irritation only. (See SECTION 16)

**Skin:**  
Estimate: Rabbit, non-irritant (See SECTION 16)

**Sensitization:**  
Estimate: skin: Non-sensitizing (See SECTION 16)

**Mutagenicity:**  
Ames Test (S. typhimurium, E. coli): Negative

**Reproductive Toxicity:**  
Not available

**Carcinogenicity:**  
Not available

**Others:**  
Chronic effects:  
Muhle et al. reported pulmonary response upon chronic inhalation exposure in rats to a toner enriched in respirable-sized particles compared to commercial toner. No pulmonary change was found at 1 mg/m<sup>3</sup> which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at 4 mg/m<sup>3</sup>, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m<sup>3</sup>.  
These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.

## SECTION 12 ECOLOGICAL INFORMATION

**Mobility:** Not available

**Persistence / Degradability:** Not available

**Bioaccumulation:** Not available

**Ecotoxicity:** Estimate: Fish, 96h LL50 > 1000 mg/l (WAF)  
Estimate: Crustaceans, 48h EL50 > 1000 mg/l (WAF)  
Estimate: Algae, EbL50(72h), ErL50(0-72h) > 1000 mg/l (WAF)  
(See SECTION 16)

**Other Adverse Effects:** Not available

## SECTION 13 DISPOSAL CONSIDERATIONS

**Method of Disposal:**  
 DO NOT put toner or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner container, unless dust-explosion preventing measures are taken. Finely dispersed particles form explosive mixtures in air. Disposal should be subject to federal, state and local laws.

## SECTION 14 TRANSPORT INFORMATION

**UN #:** By ship:None By air:Not identified

**UN Shipping Name:** By ship:None By air:Not identified

**UN Classification:** By ship:None By air:Not identified

**UN Packing Group:** By ship:None By air:Not identified

**Marine Pollutant:** ☐ Yes Chemical name (wt%):  
☒ No

**Special Precautions:**None

## SECTION 15 REGULATORY INFORMATION

### < EU Information >

#### Information on the Label:

**Symbol & Indication:** Not required

**R-Phrase:**  
Not required

**S-Phrase:**  
Not required

**Dangerous Component(s):**  
Not required

**Special Precautions under 1999/45/EC Annex V:**  
Not required

#### Specific Provisions in Relation to Protection of Man or the Environment:

**76/769/EEC:** Not regulated

**(EC)2037/2000:** Not regulated

**(EC)689/2008:** Not regulated

**Others:** None

< USA Information >

Information on the Label under OSHA:

Signal Word: Not required

Hazard warning:

Not required

Safety Advice:

Not required

Hazardous Component(s):

Not required

SARA Title III §313:

Chemical Name	Weight %
"Zinc compounds" (as Zn)	40-50 (0-0.3)

California Proposition 65:

Chemical Name	Weight %
None	

< Canada Information >

WHMIS Controlled Product: Not applicable (Manufactured article)

< Australia Information >

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC.

SECTION 16 OTHER INFORMATION

Estimate: Estimate based on test data on similar toner/developer/drum and/or the raw materials of this product.

Literature References:

- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67/548/EEC, 1999/45/EC
- EU Regulation (EC)2037/2000, (EC)689/2008, (EC)1907/2006
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]

**Abbreviations:**

EU: European Union.  
 OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA).  
 ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.  
 EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC.  
 DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.  
 TWA: Time Weighted Average.  
 STEL: Short Term Exposure Limit.  
 IARC: International Agency for Research on Cancer.  
 NTP: National Toxicology Program (USA).  
 WAF: Water Accommodated Fraction  
 LL: Lethal Loading rate  
 EL: Effective Loading rate  
 OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).  
 FHSA: Federal Hazardous Substances Act (USA).  
 WHMIS: Workplace Hazardous Materials Information System.  
 NOHSC: National Occupational Health and Safety Commission.  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

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