

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

**Product Identifier:**

**Product Name:** Canon EP-27 Cartridge for Laser Beam Printer

**Product Code:** 8489A / R34-6002

**Relevant Identified Uses:** Toner for electrophotographic apparatus

**Details of Supplier of Safety Data Sheet:**

**Supplier:** Canon Europa NV

**Address:** Bovenkerkerweg 59, 1185XB Amstelveen, The Netherlands

**Telephone Number:** +31 20 5458545, +31 20 5458222

**E-mail Address:** www.canon-europe.com, ceu-Reach@canon-europe.com

**Emergency Telephone Number:** DENMARK: +45 82 12 12 12; GERMANY: +49 30 19240, +49 761 19240; BELGIUM & NETHERLANDS: +32 70 245 245; FRANCE: +33 1 40 05 48 48; UK only 0845 4647; FINLAND: +358 9 471 977; SWEDEN: +46 8 33 12 31

**Manufacturer:** Canon Inc.

**Address:** 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan

**SECTION 2 HAZARDS IDENTIFICATION**

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

**US Regulatory Status under OSHA HCS:**

Not classified as hazardous.

**US Label Elements under OSHA HCS:**

**Signal Word:** Not required

**Hazard Warning:** Not required

**Safety Advice:** Not required

**Hazardous Component:** Not required

**EU Classification under 1999/45/EC:**

Not classified as dangerous.

**EU Label Elements under 1999/45/EC:**

**Symbol & Indication:** Not required

**R-Phrase:** Not required

**S-Phrase:** Not required

**Dangerous Component:** Not required

**Applicable Label Elements in accordance with Annex V to 1999/45/EC:**

Not required

**Other Hazards:** None

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

Substance or Mixture: Mixture

**Ingredient(s):**

Chemical Name/ Generic Name	CAS #/ EC #	Concentration/ Concentration Range (%)	EU Classification according to 67/548/EEC		EU Classification according to (EC) No 1272/2008		Note to Other Hazards* <sup>2</sup>
			Symbol/ Indication of Danger	R-Phrase* <sup>1</sup>	Hazard Class/ Category Code	Hazard Statement* <sup>1</sup>	
Styrene acrylate copolymer	Confidential	45-55	None	None	None	None	
Iron oxide	1317-61-9/ 215-277-5	40-50	None	None	None	None	
Amorphous silica	7631-86-9/ 231-545-4	1-3	None	None	None	None	(1)

\*1 Full texts of R-phrase(s) and Hazard statement(s) are listed in SECTION 16

\*2 The following substance(s) is (are) marked with (1), (2) and/or (3)

(1) Substance for which Occupational Exposure Limit(s) is (are) established (See SECTION 8)

(2) PBT substance or vPvB substance under Regulation (EC) No 1907/2006

(3) Substance listed in Candidate List of SVHC for Authorisation under Regulation (EC) No 1907/2006

**Carcinogen(s)**

No component of this toner is listed as a human carcinogen or a potential carcinogen in IARC Monographs, NTP, OSHA regulations or Part 3 of Annex VI to Regulation (EC) No 1272/2008.

**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.

**Skin:**

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

**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.

**Most Important Symptoms and Effects, both Acute and Delayed:**

**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.

**Skin:**

May be non-irritant.

**Eye:**

May cause transient slight irritation.

**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.

**Indication of Any Immediate Medical Attention and Special Treatment Needed:**

None

**SECTION 5 FIRE FIGHTING MEASURES**

**Extinguishing Media:**

**Suitable Extinguishing Media:**

CO2, water, dry chemicals

**Unsuitable Extinguishing Media:**

None

**Special Hazards:**

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

**Hazardous Combustion Products:**

CO2, CO

**Advice for Fire-fighters:**

Wear gloves, glasses, a mask if necessary.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Avoid breathing dust. Wash thoroughly after handling.

**Environmental Precautions:**

Do not wash away into sewer.

**Methods and Material for Containment and 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**

**Precautions for Safe Handling:**

Avoid breathing dust. Wash thoroughly after handling.  
Use with adequate ventilation.

**Conditions for Safe Storage, Including Any Incompatibilities:**

Keep out of the reach of children.  
Keep away from oxidizing materials.

**Specific End Uses:**

Toner for electrophotographic apparatus.  
For more information, please refer to the instruction of this product.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control Parameters:**

	USA OSHA PEL	ACGIH TLV	EU OEL
Product (Toner)	PNOR: TWA 15 mg/m <sup>3</sup> (Total dust), TWA 5 mg/m <sup>3</sup> (Respirable fraction)	PNOS: TWA 10 mg/m <sup>3</sup> (Inhalable fraction), TWA 3 mg/m <sup>3</sup> (Respirable fraction)	Not established
Amorphous silica	20 mppcf, 80 (mg/m <sup>3</sup> )/%SiO <sub>2</sub>	Not established	Not established

**Exposure Controls:**

**Engineering Controls:**

No special ventilation equipment is needed under intended use of this product.

**Individual Protection Measures:**

**Eye/Face Protection:**  Required  
 Not Required

**Skin Protection:**  Required  
 Not Required

**Respiratory Protection:**  Required  
 Not Required

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Information on Basic Physical and Chemical Properties:**

<b>Appearance:</b>	<u>Black fine powder</u>
<b>Odor:</b>	<u>Slight plastic odor</u>
<b>pH:</b>	<u>Not applicable</u>
<b>Melting Point/Freezing Point (°C):</b>	<u>100-150 (Softening point)</u>
<b>Initial Boiling Point and Boiling Range (°C):</b>	<u>Not applicable</u>
<b>Flash Point(°C):</b>	<u>Not applicable</u>
<b>Evaporation Rate:</b>	<u>Not applicable</u>
<b>Flammability:</b>	<u>Estimate: Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids)) (See SECTION 16)</u>
<b>Upper/Lower Flammable or Explosive Limits:</b>	<u>Not applicable</u>
<b>Vapor Pressure:</b>	<u>Not applicable</u>
<b>Vapor Density:</b>	<u>Not applicable</u>
<b>Relative Density:</b>	<u>1.4-1.8</u>
<b>Water Solubility:</b>	<u>Negligible</u>
<b>Fat Solubility:</b>	<u>Partially soluble in toluene and xylene.</u>
<b>Partition Coefficient (n-Octanol/Water):</b>	<u>Not applicable</u>
<b>Auto-ignition Temperature (°C):</b>	<u>Not available</u>
<b>Decomposition Temperature (°C):</b>	<u>&gt; 200</u>
<b>Viscosity (mPa s):</b>	<u>Not applicable</u>
<b>Explosive Properties:</b>	<u>Can form explosive dust-air mixtures when finely dispersed in air.</u>
<b>Oxidizing Properties:</b>	<u>Not available</u>
<b>Other Information:</b>	<u>Not available</u>

**SECTION 10 STABILITY AND REACTIVITY**

<b>Reactivity:</b>	<u>None</u>
<b>Chemical Stability:</b>	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
<b>Possibility of Hazardous Reactions:</b>	<u>None</u>
<b>Conditions to Avoid:</b>	<u>None</u>
<b>Incompatible Materials:</b>	<u>Strong oxidizers</u>
<b>Hazardous Decomposition Products:</b>	<u>CO, CO2</u>

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on Toxicological Effects:**

**Acute Toxicity:**

**Inhalation:**

Not available

**Ingestion:**

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

**Corrosivity/Irritation:**

**Skin:**

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

**Eye:**

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

**Sensitization:**

**Skin:**

Estimate: Non-sensitizing (See SECTION 16)

**Repeated Dose Toxicity:**

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.

**Carcinogenicity:**

Not available

**Mutagenicity:**

Estimate: Ames Test (S. typhimurium, E. coli): Negative (See SECTION 16)

**Toxicity for Reproduction:**

Not available

**Other Information:**

Not available

**SECTION 12 ECOLOGICAL INFORMATION**

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

**Persistence and Degradability:** Not available

**Bioaccumulative Potential:** Not available

**Mobility in Soil:** Not available

**Results of PBT and vPvB Assessment:** No results that the component(s) of this toner meet(s) the PBT or vPvB criteria under Regulation (EC) No 1907/2006.

**Other Adverse Effects:** Not available

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods:**  
 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 Number:** 2807

**UN Proper Shipping Name:** Magnetized material

**Transport Hazard Class:** 9

**Packing Group:** None

**Environmental Hazards:** Not classified as environmentally hazardous under UN Model Regulations and marine pollutant under IMDG Code.

**Special Precautions for User:** 79 or more of these products shipped together, by air, are regulated as magnetized material.

**SECTION 15 REGULATORY INFORMATION**

< USA Information >

**SARA Title III §313:**

Chemical Name	Weight %
None	

**California Proposition 65:**

Chemical Name	Weight %
None	

< EU Information >

**Safety, Health and Environmental Regulations/Legislation:**

(EC) No 1907/2006: **Authorisation:** Not regulated  
**Restriction:** Not regulated

(EC) No 1005/2009: Not regulated

(EC) No 850/2004: Not regulated

(EC) No 689/2008: Not regulated

**Others:** None

**Chemical Safety Assessment under (EC) No 1907/2006:** Not required

**SECTION 15 REGULATORY INFORMATION (continued)**

< **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**

<Revised information from the previous version>

Entirely revised

<Term explanation>

Estimate: Estimate based on data of similar product or the ingredient(s) 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
- EU Directive 1999/45/EC
- EU Regulation (EC) No 1907/2006, (EC) No 1272/2008, (EC) No 1005/2009, (EC) No 850/2004, (EC) No 689/2008
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]

**Abbreviations:**

- OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA)
- FHSA: Federal Hazardous Substances Act (USA)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- SVHC: Substances of Very High Concern
- IARC: International Agency for Research on Cancer
- NTP: National Toxicology Program (USA)
- 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 OEL: Occupational exposure limits at Community level under Directive 2004/37/EC, 98/24/EC, 91/322/EEC, 2000/39/EC, 2006/15/EC and 2009/161/EU
- TWA: Time Weighted Average
- STEL: Short Term Exposure Limit
- PNOR: Particulates Not Otherwise Regulated
- PNOS: Particles (insoluble or poorly soluble) Not Otherwise Specified
- WHMIS: Workplace Hazardous Materials Information System
- NOHSC: National Occupational Health and Safety Commission

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