



## MATERIAL SAFETY DATA SHEET

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MSDS #: TC1221-0101

Product Code: 1526A / R64-1003

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

<b>Product Name:</b>	Canon EP-L Cartridge						
<b>Product Code:</b>	1526A / R64-1003						
<b>Manufacturer:</b>	Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Ph # 03-3758-2111						
<b>Supplier:</b>	Canon USA, Inc., One Canon Park, Melville, NY 11747, USA						
<b>Phone # :</b>	1-800-OK-CANON 24 Hr. Emergency CHEMTREC # 1-800-424-9300						

### SECTION 2 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	55-65	None/ None	Not established	Not established	Not established	Not established
Iron oxide	1317-61-9/ 215-277-5	30-40	None/ None	Not established	Not established	Not established	Not established

#### < Carcinogen >

Chemical Name	CAS #	Reference
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.		

### SECTION 3 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:

Practically non-toxic based on animal testing. 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



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### 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

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### SECTION 5 FIRE FIGHTING MEASURES

#### Fire Fighting Measures:

##### Extinguishing Media:

CO<sub>2</sub>, 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:

CO<sub>2</sub>, CO

##### Other Properties:

Not available

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### 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.

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### 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.



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### 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 2)

#### Engineering Controls:

Use adequate ventilation.

#### Personal Protection Equipment(s):

**Respiratory Protection:**  Required  
 Not Required

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

**Skin Protection:**  Required  
 Not Required

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### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Black fine powder
<b>Odor:</b>	Slight plastic odor
<b>pH:</b>	Not applicable
<b>Boiling Point/Range(°C):</b>	Not applicable
<b>Melting Point/Range(°C):</b>	100 - 150 (Softening point)
<b>Decomposition Temperature(°C):</b>	> 200
<b>Flash Point(°C):</b>	Not applicable
<b>Flammable (Explosive) Limits:</b>	Not applicable
<b>Autoignition Temperature(°C):</b>	Not available
<b>Flammability:</b>	Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids))
<b>Explosive Properties:</b>	Can form explosive dust-air mixtures when finely dispersed in air.
<b>Oxidizing Properties:</b>	Not available
<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density:</b>	Not applicable
<b>Density / Specific Gravity:</b>	1.4 - 1.6
<b>Water Solubility:</b>	Negligible
<b>Fat Solubility:</b>	Partially soluble in toluene and xylene.
<b>Partition Coefficient (n-Octanol/Water):</b>	Not applicable
<b>Percent Volatile:</b>	Negligible
<b>Evaporation Rate:</b>	Not applicable
<b>Viscosity (mPa s):</b>	Not applicable

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**SECTION 10 STABILITY AND REACTIVITY**

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**Stability:**  Stable  
 Unstable

**Conditions to Avoid:** None

**Materials to Avoid:** Strong oxidizers

**Hazardous Decomposition Products:** CO, CO<sub>2</sub>

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

**Conditions to Avoid:** None

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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**Acute Toxicity:****Inhalation:**

Not available

**Ingestion:**

Rat, LD<sub>50</sub> > 5000 mg/kg

**Eye:**

Rabbit, transient slight conjunctival irritation only.

**Skin:**

Rabbit, non-irritant

**Sensitization:**

Guinea pig, skin: Non-sensitizing

**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.

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**SECTION 12 ECOLOGICAL INFORMATION**

**Mobility:** Not available

**Persistence / Degradability:** Not available

**Bioaccumulation:** Not available

**Ecotoxicity:** Not available

**Other Adverse Effects:** Not available

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**SECTION 13 DISPOSAL CONSIDERATION****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.

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**SECTION 14 TRANSPORT INFORMATION**

**UN #:** 2807

**UN Shipping Name:** Magnetized material

**UN Classification:** 9

**UN Packing Group:** None

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

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**Special Precautions:** 9 or more of these products shipped together, by air, are regulated as magnetized material.

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**SECTION 15 REGULATORY INFORMATION****< EU Information >****Information on the Label:**

**Symbol & Indication:** Not required

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**R-Phrase:**

Not required

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**S-Phrase:**

Not required

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**Dangerous Component(s):**

None

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**Special Precautions under 1999/45/EC Annex V:**

Not required

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

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

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

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**(EC)304/2003:** Not regulated

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**Others:** None

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**< USA Information >****Information on the Label:**

**Signal Word:** Not required

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**Hazard warning:**

Not required

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**Safety Advice:**

Not required

**Hazardous Component(s):**

None

**SARA Title III §313:****Chemical Name****Weight %**

None

**California Proposition 65:****Chemical Name****Weight %**

None

## &lt; Canada Information &gt;

**WHMIS Controlled Product:** Not applicable (Manufactured article)

## &lt; Australia Information &gt;

**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 Reference:

- 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)304/2003
- 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 and 2000/39/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).

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.

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