

Page 1 of 7 MSDS #: TC1661-0102

MATERIAL SAFETY DATA SHEET Product Code: 1979B / R04-6123

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

COMPANY/UNDERTAKING

**Product Name:** Canon Cartridge 716 Cyan (for Laser Beam Printer)

**Product Code:** 1979B / R04-6123 **Company Name:** Canon Europa N.V.

Address: Bovenkerkerweg 59-61, 1185XB, The Netherlands

Use of the Product: Toner for electrophotographic apparatus

**SECTION 2** HAZARDS IDENTIFICATION

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

Emergency Overview: Cyan 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.

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	75-85	None/ None	Not established	Not established	Not established	Not established
Wax	Confidential	5-10	None/ None	Not established	Not established	Not established	Not established
Pigment	Confidential	1-6	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.

Revised:

## < PBT substance and vPvB substance >

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

Date of Issue: December 20, 2007

## MATERIAL SAFETY DATA SHEET

Page 2 of 7
MSDS #: TC1661-0102

Product Code: 1979B / R04-6123

# 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.



**Percent Volatile:** 

**Evaporation Rate:** Viscosity (mPa s):

Page 3 of 7 TC1661-0102

MSDS #:

MATERIAL SAFETY DATA SHEET Product Code: 1979B / R04-6123

#### EXPOSURE CONTROLS / PERSONAL PROTECTION **SECTION 8 Exposure Guidelines:** USA OSHA PEL (TWA): 15 mg/m<sup>3</sup> (Total dust), 5 mg/m<sup>3</sup> (Respirable fraction) 10 mg/m<sup>3</sup> (Inhalable fraction), 3 mg/m<sup>3</sup> (Respirable fraction) ACGIH TLV (TWA): 4 mg/m<sup>3</sup> (Inhalable fraction), 1.5 mg/m<sup>3</sup> (Respirable fraction) DFG (MAK): (Also refer to SECTION 3) **Engineering Controls:** Use adequate ventilation. **Personal Protection Equipment(s): Respiratory Protection:** $\square$ Required Not Required ☐ Required **Eye/Face Protection:** Not Required **Skin Protection:** ☐ Required Not Required **SECTION 9** PHYSICAL AND CHEMICAL PROPERTIES Appearance: Cyan fine powder Odor: Slight plastic odor pH: Not applicable **Boiling Point/Range(°C):** Not applicable **Melting Point/Range(°C):** 80-130 (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:** 1.0 - 1.2Water Solubility: Negligible **Fat Solubility:** Partially soluble in toluene and xylene. Partition Coefficient (n-Octanol/Water): Not applicable

Date of Issue: December 20, 2007 Revised:

Negligible Not applicable

Not applicable

MSDS #: TC1661-0102 MATERIAL SAFETY DATA SHEET Product Code: 1979B / R04-6123

Page 4 of 7

SECTION 10 STABILITY AND	REACTIVITY				
Stability:	<ul><li></li></ul>				
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  $mg/m^3$ .

These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.

Date of Issue: Revised: December 20, 2007

Page 5 of 7 TC1661-0102

MSDS #: TC1661-0102

MATERIAL SAFETY DATA SHEET Product Code: 1979B / R04-6123

SECTION 12 E	COLOGICAL INFORMATION						
<b>Mobility:</b>	Not available						
Persistence / Degrada	Not available  Not available						
<b>Bioaccumulation:</b>							
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 Effec	Not available						
SECTION 13 DI	SPOSAL CONSIDERATIONS						
container, unless d	or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner ust-explosion preventing measures are taken. Finely dispersed particles form explosive sposal should be subject to federal, state and local laws.						
SECTION 14 T	RANSPORT INFORMATION						
UN #:	None						
UN Shipping Name:	None						
UN Classification:	None						
UN Packing Group:	None						
	☐ Yes Chemical name (wt%): ☐ No						
<b>Special Precautions:</b>	None						
SECTION 15 R	EGULATORY INFORMATION						
< EU Information >							
Information on the Label:							
Symbol & Indica	Not required						
R-Phrase: Not required							
S-Phrase: Not required							
Dangerous Comp Not required	oonent(s):						
Special Precaution Not required	ns under 1999/45/EC Annex V:						
-	in Relation to Protection of Man or the Environment:  Not regulated						
(EC)2037/2000: 1							
_	Not regulated						
_	None						
	**						



# MATERIAL SAFETY DATA SHEET

Page 6 of 7

MSDS #: TC1661-0102 Product Code: 1979B / R04-6123

< 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 %

None

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
- $-\,EU\,\,Regulation\,(EC)2037/2000,\,(EC)304/2003,\,(EC)1907/2006$
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]



# MATERIAL SAFETY DATA SHEET

Page 7 of 7

MSDS #: TC1661-0102

Product Code: 1979B / R04-6123

#### **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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