

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

Product Name: Canon Cartridge 723 Yellow (for Laser Beam Printer)
Product Code: 2641B / R04-9121
Company Name: Canon Inc.
Address: 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan
Use of the Product: Toner for electrophotographic apparatus

SECTION 2 HAZARDS IDENTIFICATION

EU Classification: Not classified as dangerous.
Emergency Overview: Yellow 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	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	1-5	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 ³)/%SiO ₂	Not established	Not established	4 mg/m ³ (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 Part 3 of Annex VI to Regulation (EC) No 1272/2008.

< **PBT substance and vPvB substance** >

No component of this toner is a PBT or vPvB substance under Regulation (EC) No 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/m³ (Total dust), 5 mg/m³ (Respirable fraction)
 ACGIH TLV (TWA): 10 mg/m³ (Inhalable fraction), 3 mg/m³ (Respirable fraction)
 DFG MAK: 4 mg/m³ (Inhalable fraction), 1.5 mg/m³ (Respirable fraction)
 (Also refer to SECTION 3)

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	<u>Yellow fine powder</u>
Odor:	<u>Slight plastic odor</u>
pH:	<u>Not applicable</u>
Boiling Point/Range(°C):	<u>Not applicable</u>
Melting Point/Range(°C):	<u>80-130 (Softening point)</u>
Decomposition Temperature(°C):	<u>> 200</u>
Flash Point(°C):	<u>Not applicable</u>
Flammable (Explosive) Limits:	<u>Not applicable</u>
Autoignition Temperature(°C):	<u>Not available</u>
Flammability:	<u>Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids))</u>
Explosive Properties:	<u>Can form explosive dust-air mixtures when finely dispersed in air.</u>
Oxidizing Properties:	<u>Not available</u>
Vapor Pressure:	<u>Not applicable</u>
Vapor Density:	<u>Not applicable</u>
Density / Specific Gravity:	<u>1.0-1.2</u>
Water Solubility:	<u>Negligible</u>
Fat Solubility:	<u>Partially soluble in toluene and xylene.</u>
Partition Coefficient (n-Octanol/Water):	<u>Not applicable</u>
Percent Volatile:	<u>Negligible</u>
Evaporation Rate:	<u>Not applicable</u>
Viscosity (mPa s):	<u>Not applicable</u>

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/m³ 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/m³, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m³.
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 LC50 > 100 mg/l,
Estimate: Crustaceans, 48h EC50 > 100 mg/l,
Estimate: Algae, ErC50(0-72h) > 100 mg/L (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 #: None

UN Shipping Name: None

UN Classification: None

UN Packing Group: None

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

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:

(EC) No 1907/2006 Annex XVII (Restrictions): Not regulated

(EC) No 2037/2000: Not regulated

(EC) No 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 %
<u>None</u>	

California Proposition 65:

Chemical Name	Weight %
<u>None</u>	

< 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: SECTION 3, 12 and 15
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 (EC) No 1907/2006 Annex XVII (Restrictions), 1999/45/EC
- EU Regulation (EC) No 2037/2000, (EC) No 689/2008, (EC) No 1907/2006, (EC) No 1272/2008
- 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).
- 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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