Canon

# MATERIAL SAFETY DATA SHEET

MSDS #: TC1274-0204
Product Code: 0263B / R64-8001

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

**Product Name:** Canon Cartridge 104 for Multi Function Printer

**Product Code:** 0263B / R64-8001

**Manufacturer:** Canon Inc.,30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Ph# 03-3857-2111

**Supplier:** Canon USA, Inc., One Canon Plaza, Lake Suuccess, NY, 11042, USA

**Phone # :** 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 | 45-55 | None/ None | Not established | Not established | Not established | Not established |
| Iron oxide | 1317-61-9/ 215-277-5 | 40-50 | None/ None | Not established | Not established | Not established | Not established |
| Amorphous silica | 7631-86-9/ 231-545-4 | 1-3 | None/ None | 20 mppcf, 80 ($mg/m^3$)/%$Si0_2$ | 10 $mg/m^3$ (TWA) | Not established | 4 $mg/m^3$ (Inhalable fraction) |

**< 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:**

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 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$^3$ (Total dust), 5 mg/m$^3$ (Respirable fraction)
ACGIH TLV (TWA): 10 mg/m$^3$ (Inhalable fraction), 3 mg/m$^3$ (Respirable fraction)
DFG MAK: 4 mg/m$^3$ (Inhalable fraction), 1.5 mg/m$^3$ (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

## 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: Guinea pig, skin: Non-sensitizing (See Section 16)

**Mutagenicity:**
Estimate: Ames Test (S. typhimurium, E. coli): Negative (See Section 16)

**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 $mg/m^3$ which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at 4 $mg/m^3$, 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.

## SECTION 12 ECOLOGICAL INFORMATION

**Mobility:** Not available

**Persistence / Degradability:** Not available

**Bioaccumulation:** Not available

**Ecotoxicity:** Estimate: Fish (Rainbow trout), 96h LL50 > 1000 mg/l (WAF)
Estimate: Crustaceans (Daphnia magna), 48h EL50 > 1000 mg/l (WAF)
Estimate: Algae (Scenedesmus subspicatus), 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 #:** 2807

**UN Shipping Name:** Magnetized material

**UN Classification:** 9

**UN Packing Group:** None

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

**Special Precautions:** 168 or more of these products shipped together, by air, are regulated as magnetized material.

## 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)304/2003:** Not regulated

**Others:** None

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**< 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.
Revised information from the previous version: Section 12

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]

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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).
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.

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