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MATERIAL SAFETY DATA SHEET

MSDS #: TN1175-0204

Product Code: 9634A / F42-6601

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon GPR-16 Black Toner

Product Code: 9634A / F42-6601

Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Ph# 03-3758-2111 Manufacturer:

Canon USA, Inc., One Canon Park, Melville, NY 11747, USA Supplier:

Phone #: 1-800-OK-CANON 24 Hr. Emergency CHEMTREC # 1-800-424-9300

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

< Ingredient(s) >	
Chemical Name /	

Chemical Name / Generic Name	CAS #/ EC #	Weight %	EU Symbol/ R-Phrase	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Polyester resin	Confidential	45-55	None/ None	Not established	Not established	Not established	Not established
Ferrite including zinc	Confidential	40-50 (as Zn:0.1-0.2)	None/ None	Not established	Not established	Not established	Not established
Amorphous silica	7631-86-9/ 231-545-4	1-2	None/ None	20mppcf, 80(mg/m ³)/%SiO ₂	10 mg/m³ (TWA)	Not established	4 mg/m³ (Inhalable fraction)

< Carcinogen >

CAS# Reference Chemical Name

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 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 cause 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.

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

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.

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Viscosity (mPa s):

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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 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 1.4-1.8 **Density / Specific Gravity:** Water Solubility: Negligible Partially soluble in toluene and xylene. **Fat Solubility:** Partition Coefficient (n-Octanol/Water): Not applicable **Percent Volatile:** Negligible **Evaporation Rate:** Not applicable

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Not applicable

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SECTION 10 STABILITY AND	REACTIVITY					
Stability:	Stable Unstable Unstable					
Conditions to Avoid:	None Strong oxidizers CO, CO2					
Materials to Avoid:						
Hazardous Decomposition Products:						
Hazardous Polymerization:	☐ May Occur ☑ Will Not Occur					
Conditions to Avoid:	None					
SECTION 11 TOXICOLOGICAL INFORMATION						
Acute Toxicity: Inhalation: Not available						
Ingestion: Rat, LD50 > 2000 mg/kg						
Eye: Rabbit, transient slight conjunctive	val irritation only.					
Skin: Rabbit, mild irritant						
Sensitization: Guinea pig, skin: Non-sensitizing						
Mutagenicity: Ames Test (S. typhimurium, E. c	oli): 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 $1~\text{mg/m}^3$ which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at $4~\text{mg/m}^3$, and a mild to moderate degree of fibrosis was observed in 92% of the animals at $16~\text{mg/m}^3$. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.

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SECTION 12 ECO	LOGICAL INFORMATION							
Mobility:	Not available							
Persistence / Degradabili	Not available Not available							
Bioaccumulation:								
Ecotoxicity:	Fish (Rainbow trout), 96h LL50 > 1000 mg/l (WAF) Crustaceans (Daphnia magna), 48h EL50 > 1000 mg/l (WAF) Algae (Scenedesmus subspicatus), EbL50(72h), ErL50(0-72h) > 1000 mg/l (WAF)							
Other Adverse Effects:	Not available							
SECTION 13 DISPO	OSAL CONSIDERATIONS							
container, unless dust-	coner container into fire; heated toner may cause severe burns. DO NOT shred a toner explosion preventing measures are taken. Finely dispersed particles form explosive mixtures be subject to federal, state and local laws.							
SECTION 14 TRAI	NSPORT INFORMATION							
UN #: Non	None							
UN Shipping Name: Non	ie e							
UN Classification: Non	ne e							
UN Packing Group: Non	ne e							
1	☐ Yes Chemical name (wt%): No							
Special Precautions: Non	<u>e</u>							
SECTION 15 REG	ULATORY INFORMATION							
< EU Information >								
Information on the Lab								
Symbol & Indication	Not required							
R-Phrase: Not required								
S-Phrase: Not required								
Not required	ent(s):							
Special Precautions u	under 1999/45/EC Annex V:							
-	telation to Protection of Man or the Environment:							
76/769/EEC: Not	regulated							
(EC)2037/2000: Not	regulated							
(EC)304/2003: Not	regulated							
Others: Non	e							

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< USA Information >

Information on the Label:

Signal Word: Not required

Hazard warning:

Not required

Safety Advice:

Not required

Hazardous Component(s):

Not required

SARA Title III §313:

Chemical Name Weight %

Zinc compounds 40-50 (as Zn) (0.1-0.2)

California Proposition 65:

Chemical Name Weight %

None

< Canada Information >

WHMIS Controlled Product: Not a controlled product

< Australia Information >

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC.

SECTION 16 OTHER INFORMATION

None

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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