Page 1 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon GPR-6 Black Toner

Product Code: 6647A / F42-4701

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

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

Phone #: 1-800-OK-CANON 24Hr. 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
Polyester resin	Confidential	45-55	None/ None	Not established	Not established	Not established	Not established
Ferrite including zinc	Confidential	40-50 (as Zn: 0-0.2)	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/m³)/%SiO ₂	Not established	Not established	4 mg/m³ (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 based on animal testing. Ingestion is a minor route of entry for intended use of this product.

Eve

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



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

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.

Page 3 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

SECTION 8 EXPOSU	RE CONTR	OLS / 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 Equipme	ent(s):					
Respiratory Protection:	☐ Required Mot Requi	red				
	☐ Required ☑ Not Required					
	☐ Required ☐ Not Required					
SECTION 9 PHYSICA	AL AND CH	EMICAL 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 (${}^{\circ}$ C):		> 200				
Flash Point(°C):		Not applicable				
Flammable (Explosive) Limit	ts:	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				

Page 4 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

SECTION 10 STABILITY AND	REACTIVITY				
Stability:	Stable Unstable □				
Conditions to Avoid:	None				
Materials to Avoid:	Strong oxidizers CO, CO2				
Hazardous Decomposition Products:					
Hazardous Polymerization:	☐ May Occur ☑ Will Not Occur				
Conditions to Avoid:	None				
SECTION 11 TOXICOLOGICA	AL 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	g				
Mutagenicity: Ames Test (S. typhimurium, E. c	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.

Page 5 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

SECTION 12 E	COLOG	GICAL INFORMATION					
Mobility:		Not available					
Persistence / Degrad	ability:	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 Effec	ts:	Not available					
SECTION 13 D	ISPOSA	L CONSIDERATIONS					
container, unless d	ust-explo	container into fire; heated toner may cause severe burns. DO NOT shred a toner osion preventing measures are taken. Finely dispersed particles form explosive mixtures ubject to federal, state and local laws.					
SECTION 14 T	RANSP	ORT INFORMATION					
UN #:	None						
UN Shipping Name:	None						
UN Classification:	None						
UN Packing Group:	None						
	☐ Yes ⋈ No	Chemical name (wt%):					
Special Precautions:	None						
SECTION 15 R	EGULA	ATORY INFORMATION					
< EU Information > Information on the Symbol & Indica		ot required					
R-Phrase: Not required							
S-Phrase: Not required							
Dangerous Comp Not required	ponent(s):					
Special Precaution Not required	ons unde	r 1999/45/EC Annex V:					
-		ion to Protection of Man or the Environment:					
76/769/EEC:	Not regu	ılated					
(EC)2037/2000:	Not regu	ılated					
(EC)304/2003:	Not regu	lated					
Others:	None						

Page 6 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

(0-0.2)

< 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 NameWeight %"Zinc Compounds"40-50

(as Zn)

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

Revised information from the previous version: SECTION 2, 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 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]

Page 7 of 7



MATERIAL SAFETY DATA SHEET

MSDS #: TN1178-0205 Product Code: 6647A / F42-4701

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.

The information, data and recommendations set forth herein (the "Information") are presented in good faith and are believed to be correct as of the date hereof. The company/manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company/manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.