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

	IFAN I/UNDER IARING			
Product Identifier:				
Product Name:	Canon C-EXV 21 Magenta Drum Unit			
Product Code:	0458B / F43-9625			
Relevant Identified Us	ses: Toner for electrophotographic apparatus			
Details of Supplier of Supplier:	Safety Data Sheet: Canon Europa NV			
Address:	Bovenkerkerweg 59, 1185XB Amstelveen, The Nederlands			
Telephone Number:	+31 20 5458545, +31 20 5458222			
E-mail Address:	www.canon-europe.com, ceu-Reach@canon-europe.com			
Emergency Telephone	DENMARK: +45 82 12 12; GERMANY: +49 30 19240, +49 761 19240; BELGIUM & NETHERLANDS: +32 70 245 245; FRANCE: +33 1 40 05 48 48; UK only 0845 4647; FINLAND: +358 9 471 977; SWEDEN: +46 8 33 12 31			
Manufacturer:	Canon Inc.			
Address:	30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan			
Not classified as ha US Label Elements un Signal Word: Hazard Warning: Safety Advice:	der OSHA HCS: Not required Not required Not required			
Hazardous Compor EU Classification under Not classified as da	er 1999/45/EC:			
EU Label Elements un				
Symbol & Indicatio				
R-Phrase:	Not required			
S-Phrase:	Not required			
Dangerous Compon	ent: Not required			
Applicable Label El Not required	lements in accordance with Annex V to 1999/45/EC:			
Other Hazards: None				



MATERIAL SAFETY DATA SHEET

SECTION 3 C

COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Mixture: <u>Mixture</u> Ingredient(s):

Chemical Name/ Generic Name	CAS #/ EC #	Concentration/ Concentration		ccording to	EU Classification	according to	Note to Other
Generic Name	EC #	Range (%)	Symbol/ Indication of Danger	R-Phrase ^{*1}	(EC) No 127 Hazard Class/ Category Code	Hazard Statement ^{*1}	Hazards*2
Polyester resin	Confidential	85-95	None	None	None	None	
Pigment	Confidential	1-5	None	None	None	None	
Titanium dioxide	13463-67-7/ 236-675-5	< 1	None	None	None	None	(1)

*1 Full texts of R-phrase(s) and Hazard statement(s) are listed in SECTION 16

*2 The following substance(s) is (are) marked with (1), (2) and/or (3)

(1) Substance for which Occupational Exposure Limit(s) is (are) established (See SECTION 8)

(2) PBT substance or vPvB substance under Regulation (EC) No 1907/2006

(3) Substance listed in Candidate List of SVHC for Authorisation under Regulation (EC) No 1907/2006

Carcinogen(s) Chemical Name

 CAS#
 Reference

 13463-67-7
 IARC: Gr

Titanium dioxide (<1%)

IARC: Group 2B. NTP; OSHA; Part 3 of Annex VI to Regulation (EC) No 1272/2008: Not listed.



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. **Skin:**

Wash with soap and water. If irritation persists, obtain medical advice.

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.

Most Important Symptoms and Effects, both Acute and Delayed:

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.

Skin:

May be non-irritant.

Eye:

May cause transient 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.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

None

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable Extinguishing Media:

CO2, water, dry chemicals

Unsuitable Extinguishing Media:

None

Special Hazards:

Can form explosive dust-air mixtures when finely dispersed in air.

Hazardous Combustion Products:

<u>CO2, CO</u>

Advice for Fire-fighters:

Wear gloves, glasses, a mask if necessary.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Avoid breathing dust. Wash thoroughly after handling.

Environmental Precautions:

Do not wash away into sewer.

Methods and Material for Containment and 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

Precautions for Safe Handling:

Avoid breathing dust. Wash thoroughly after handling. Use with adequate ventilation.

Conditions for Safe Storage, Including Any Incompatibilities:

Keep out of the reach of children.

Keep away from oxidizing materials.

Specific End Uses:

Toner for electrophotographic apparatus. For more information, please refer to the instruction of this product.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

trol Parameters:	USA OSHA PEL	ACGIH TLV	EU OEL
Product (Toner)	PNOR: TWA 15 mg/m ³ (Total dust), TWA 5 mg/m ³ (Respirable fraction)	PNOS: TWA 10 mg/m ³ (Inhalable fraction), TWA 3 mg/m ³ (Respirable fraction)	Not established
Titanium dioxide	TWA 15 mg/m ³ (Total dust)	TWA 10 mg/m ³	Not established

Exposure Controls:

Engineering Controls:

No special ventilation equipment is needed under intended use of this product.

Individual Protection Measures:

Eye/Face Protection:	☐ Required ⊠ Not Required
Skin Protection:	☐ Required ☑ Not Required
Respiratory Protection	Contract Co



SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Ch Appearance:	emical Properties: Magenta fine powder
Odor:	Slight plastic odor
pH:	Not applicable
Melting Point/Freezing Point (°C):	85-120 (Softening point)
Initial Boiling Point and Boiling Range (°C):	Not applicable
Flash Point(°C):	Not applicable
Evaporation Rate:	Not applicable
Flammability:	Estimate: Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids)) (See SECTION 16)
Upper/Lower Flammable or Explosive Limits:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Relative Density:	1.0-1.2
Water Solubility:	Negligible
Fat Solubility:	Partially soluble in toluene and xylene.
Partition Coefficient (n-Octanol/Wate	er): Not applicable
Auto-ignition Temperature (°C):	Not available
Decomposition Temperature (°C):	> 200
Viscosity (mPa s):	Not applicable
Explosive Properties:	Can form explosive dust-air mixtures when finely dispersed in air.
Oxidizing Properties:	Not available
Other Information:	Not available

Reactivity:	None
Chemical Stability:	⊠ Stable □ Unstable
Possibility of Hazardous Reactions:	None
Conditions to Avoid:	None
Incompatible Materials:	Strong oxidizers
Hazardous Decomposition Products	<u>CO, CO2</u>



SECTION 11 TOXICOLOGICAL INFORMATION

Information on Toxicological Effects:

Acute Toxicity: Inhalation:

Not available

Ingestion:

Estimate: Rat, LD50 > 2000 mg/kg (See SECTION 16)

Corrosivity/Irritation:

Skin: Est

Estimate: Rabbit, non-irritant (See SECTION 16)

Eye:

Estimate: Rabbit, transient slight conjunctival irritation only. (See SECTION 16)

Sensitization:

Skin:

Estimate: Non-sensitizing (See SECTION 16)

Repeated Dose Toxicity:

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/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.

Carcinogenicity:

The IARC evaluated titanium dioxide as a Group 2B carcinogen, for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the evidence such as development of lung tumors in rats receiving chronic inhalation exposure to powdered titanium dioxide at levels that induce particle overload of the lung.

However, there is an inhalation study of a toner containing titanium dioxide which suggested no association between toner exposure and tumor development in rats.

Mutagenicity:

Ames Test (S. typhimurium, E. coli): Negative

Toxicity for Reproduction:

Not available

Other Information:

Not available

Canon	MATERIAL SAFETY DATA SHI	Page / 017 MSDS #: TN2001-010 EET Product Code: 0458B / F43-962		
SECTION 12 ECO Toxicity:	LOGICAL INFORMATION Fish, 96h LL50 > 1000 mg/l (WAF) Crustaceans, 48h EL50 > 1000 mg/l (WAF) <u>Algae, ErL50(0-72h) > 1000 mg/l (WAF)</u>			
Persistence and Degrad	lability: Not available			
Bioaccumulative Poten	tial: Not available			
Mobility in Soil:	Not available	Not available		
Results of PBT and vP Assessment:	vBNo results that the component(s) of this toner under Regulation (EC) No 1907/2006.	No results that the component(s) of this toner meet(s) the PBT or vPvB criteria under Regulation (EC) No 1907/2006.		
Other Adverse Effects:	Not available			
SECTION 13 DISP	OSAL CONSIDERATIONS			
container, unless dus	r toner container into fire; heated toner may cause seve t-explosion preventing measures are taken. Finely disp osal should be subject to federal, state and local laws.			
SECTION 14 TRA	NSPORT INFORMATION			
UN Number:	None			
UN Proper Shipping N	Name: None			
Transport Hazard Cla	ss: None			
Packing Group:	None			
Environmental Hazaro	ds: Not classified as environmentally hazardous u marine pollutant under IMDG Code.	Not classified as environmentally hazardous under UN Model Regulations and marine pollutant under IMDG Code.		
Special Precautions for	r User: None			
SECTION 15 REG < USA Information > SARA Title III §313: <u>Chemical Name</u>	ULATORY INFORMATION	Weight %		
None				
California Proposition Chemical Name		Weight %		
<u>None</u> < EU Information > Safety Health and Env	vironmental Regulations/Legislation:			
(EC) No 1907/2006				
(20)110200,2000	Restriction: Not regulated			
(EC) No 1005/2009:	X			
(EC) No 850/2004:	U			
(EC) No 689/2004:				
· · · · · · · · · · · · · · · · · · ·				
Others:	None			

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SECTION 15 REGULATORY INFORMATION (continued)

< 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

<Term explanation>

Estimate: Estimate based on data of similar product or the ingredient(s) 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
 - EU Directive 1999/45/EC
 - EU Regulation (EC) No 1907/2006, (EC) No 1272/2008, (EC) No 1005/2009, (EC) No 850/2004, (EC) No 689/2008
 - Canada Workplace Hazardous Materials Information System
 - Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]

Abbreviations:

- OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA)
- FHSA: Federal Hazardous Substances Act (USA)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- SVHC: Substances of Very High Concern
- IARC: International Agency for Research on Cancer
- NTP: National Toxicology Program (USA)
- 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 OEL: Occupational exposure limits at Community level under Directive 2004/37/EC, 98/24/EC, 91/322/EEC, 2000/39/EC, 2006/15/EC and 2009/161/EU
- TWA: Time Weighted Average
- STEL: Short Term Exposure Limit
- PNOR: Particulates Not Otherwise Regulated
- PNOS: Particles (insoluble or poorly soluble) Not Otherwise Specified
- WHMIS: Workplace Hazardous Materials Information System
- NOHSC: National Occupational Health and Safety Commission

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