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

Product Identifier:	
Product Name:	Canon C-EXV 21 Cyan Drum Unit
Product Code:	0457B / F43-9615
Relevant Identified U	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	e Number: DENMARK: +45 82 12 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
	ZARDS IDENTIFICATION
Emergency Overview:	: Cyan fine powder, slight plastic odor.
US Regulatory Status Not classified as ha	
US Label Elements un	
Signal Word:	Not required
Hazard Warning:	Not required
Safety Advice:	Not required
Hazardous Compo	nent: Not required
EU Classification und Not classified as da	
EU Label Elements un	nder 1999/45/EC:
Symbol & Indication	Not required
R-Phrase:	Not required
S-Phrase:	Not required
Dangerous Compor	nent: Not required
Applicable Label E Not required	lements in accordance with Annex V to 1999/45/EC:
Other Hazards: None	



MATERIAL SAFETY DATA SHEET

SECTION 3 CO

COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Mixture: Mixture

Ingredient(s):	
----------------	--

Chemical Name/ Generic Name	CAS #/ EC #	Concentration/ Concentration Range (%)	EU Classification ac 67/548/EE Symbol/ Indication of Danger	ccording to C R-Phrase ^{*1}	EU Classification (EC) No 12' Hazard Class/ Category Code	according to 72/2008 Hazard Statement* ¹	Note to Other 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	Required 🛛 Not Required



SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Ch Appearance:	Cyan 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 SHEET	MSDS #: TN1999-0101 Product Code: 0457B / F43-9615
SECTION 12 ECOLOG	GICAL INFORMATION	
Toxicity:	Fish, 96h LL50 > 1000 mg/l (WAF) Crustaceans, 48h EL50 > 1000 mg/l (WAF) Algae, ErL50(0-72h) > 1000 mg/l (WAF)	
Persistence and Degradabil	ity: Not available	
Bioaccumulative Potential:	Not available	
Mobility in Soil:	Not available	
Results of PBT and vPvB Assessment:	No results that the component(s) of this toner meet(s under Regulation (EC) No 1907/2006.	s) the PBT or vPvB criteria
Other Adverse Effects:	Not available	
SECTION 13 DISPOSA	AL CONSIDERATIONS	
mixtures in air. Disposal s	blosion preventing measures are taken. Finely dispersed should be subject to federal, state and local laws.	particles form explosive
UN Number:	None	
UN Proper Shipping Name		
Transport Hazard Class:	None	
Packing Group:	None	
Environmental Hazards:	Not classified as environmentally hazardous under U	JN Model Regulations and
	Not classified as environmentally hazardous under U marine pollutant under IMDG Code.	JN Model Regulations and
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: Chemical Name	Not classified as environmentally hazardous under U marine pollutant under IMDG Code.	JN Model Regulations and Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u>	Not classified as environmentally hazardous under U marine pollutant under IMDG Code. er: None	
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: Chemical Name	Not classified as environmentally hazardous under U marine pollutant under IMDG Code. er: None	
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65:	Not classified as environmentally hazardous under U marine pollutant under IMDG Code. er: None	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65: <u>Chemical Name</u> <u>None</u> < EU Information > Safety, Health and Enviror	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65: <u>Chemical Name</u> <u>None</u> < EU Information >	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65: <u>Chemical Name</u> <u>None</u> < EU Information > Safety, Health and Enviror (EC) No 1907/2006: Au	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION nmental Regulations/Legislation:	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65: <u>Chemical Name</u> <u>None</u> < EU Information > Safety, Health and Enviror (EC) No 1907/2006: Au	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION Immental Regulations/Legislation: athorisation: Not regulated estriction: Not regulated	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: <u>Chemical Name</u> <u>None</u> California Proposition 65: <u>Chemical Name</u> <u>None</u> < EU Information > Safety, Health and Enviror (EC) No 1907/2006: Au	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION Immental Regulations/Legislation: athorisation: Not regulated estriction: Not regulated regulated Not regulated	Weight %
Environmental Hazards: Special Precautions for Use SECTION 15 REGULA < USA Information > SARA Title III §313: Chemical Name None California Proposition 65: Chemical Name None < EU Information > Safety, Health and Enviror (EC) No 1907/2006: Au Real Composition S	Not classified as environmentally hazardous under Umarine pollutant under IMDG Code. er: None ATORY INFORMATION Immental Regulations/Legislation: athorisation: Not regulated estriction: Not regulated regulated regulated	Weight %

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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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