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compounds



MATERIAL SAFETY DATA SHEET

MSDS #: TN1105-0101

Product Code: 8641A / F42-6211

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon C-EXV 9 Cyan Toner

Product Code: 8641A / F42-6211
Company Name: Canon Europa N.V.

Address: Bovenkerkerweg 59-61, 1185 XB, Amstelveen, The Netherlands

Use of the Product: Toner for electrophotographic apparatus

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	75-85	None/ None	Not established	Not established	Not established	Not established
Wax	Confidential	5-10	None/ None	Not established	Not established	Not established	Not established
Copper compound	Confidential	1-5 (asCu: 0.1-0.5)	None/ None	Not established	Not established	Not established	1.0mg/m³ (Inhalable fraction) Copper and its

< 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:

Cyan 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

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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.

Date of Issue: Revised: April 16, 2003

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SECTION 8 EXPOSU Exposure Guidelines:	IRE CONTR	OLS / PERSONAL PROTECTION			
•	10 mg/m³ (Ini 4 mg/m³ (Inh	otal dust), 5 mg/m³ (Respirable fraction) halable fraction), 3 mg/m³ (Respirable fraction) alable fraction), 1.5 mg/m³ (Respirable fraction)			
Engineering Controls: Use adequate ventilation.					
Personal Protection Equipm	ent(s):				
Respiratory Protection:	☐ Required Not Required	ired			
Eye/Face Protection:	☐ Required ☑ Not Required				
Skin Protection:	☐ Required Not Required				
SECTION 9 PHYSIC.	AL AND CH	EMICAL PROPERTIES			
Appearance:		Cyan 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:		1.0 - 1.2			
Water Solubility:		Negligible			
Fat Solubility:		Partially soluble in toluene and xylene.			
Partition Coefficient (n-Octa	nol/Water):	Not applicable			
Percent Volatile:		Negligible			
Evaporation Rate:		Not applicable			
Viscosity (mPa s):		Not applicable			

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SECTION 10 STABILITY AND	REACTIVITY			
Stability:	Stable 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 TOXICOLOGICA	AL INFORMATION			
Acute Toxicity: Inhalation: Not available				
Ingestion: Estimate: Rat, LD50> 2000 mg/k	gg			
Eye: Estimate: Rabbit, transient slight	conjunctival irritation only.			
Skin: Estimate: Rabbit, non-irritant				
Sensitization: Estimate: 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 1mg/m³ which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at 4mg/m³, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16mg/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.

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SECTION 12 E	COLOG	SICAL INFORMATION
Mobility:		Not available
Persistence / Degrad	lability:	Not available
Bioaccumulation:		Not available
Ecotoxicity:		Not available
Other Adverse Effec	ets:	Not available
SECTION 13 D	ISPOSA	L CONSIDERATION
Method of Disposal: DO NOT put tone container, unless of in air. Disposal sho	r or toner lust-explo ould be si	container into fire; heated toner may cause severe burns. DO NOT shred a toner sion preventing measures are taken. Finely dispersed particles form explosive mixtures abject to federal, state and local laws.
SECTION 14 T	TRANSP(ORT INFORMATION
UN #:	None	
UN Shipping Name:		
UN Classification:	None	
UN Packing Group:	None	
Marine Pollutant:	☐ Yes ➤ No	Chemical name (wt%):
Special Precautions:	None	
SECTION 15 F	REGULA	TORY INFORMATION
< EU Information >		
Information on the Symbol & Indica		ot required
R-Phrase: Not required		
S-Phrase: Not required		
Dangerous Com None	ponent(s):
Special Precaution Not required	ons unde	r 1999/45/EC Annex V:
Specific Provisions	in Relati	on to Protection of Man or the Environment:
76/769/EEC:	Not regu	lated
(EC)2037/2000:	Not regu	lated
(EC)304/2003:	Not regu	lated
Others:	None	
< USA Information >	>	
Information on the	Label:	
Signal Word:	Not requ	nired
Hazard warning Not required	; :	



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Safety Advice:

Not required

Hazardous Component(s):

None

SARA Title III §313:

Chemical Name Weight %

None

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]

Abbreviations

"EU" stands for European Union.

"OSHA PEL" stands for PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration(USA).

"ACGIH TLV" stands for TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.

"EU ILV" stands for Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC and 2000/39/EC.

 $"DFG\ MAK"\ stands\ for\ MAK (Maximale\ Arbeitsplatzkonzentrationen)\ under\ Deutsche\ Forschungsgemeinschaft.$

"TWA" stands for Time Weighted Average.

"IARC" stands for International Agency for Research on Cancer.

"NTP" stands for National Toxicology Program (USA).

"OSHA HCS" stands for Occupational Safety and Health Act, Hazard Communication Standard(USA).

 $"FHSA"\ stands\ for\ Federal\ Hazardous\ Substances\ Act (USA).$

"WHMIS" stands for Workplace Hazardous Materials Information System.

"NOHSC" stands for National Occupational Health and Safety Commission Act 1985.

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