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MATERIAL SAFETY DATA SHEET

MSDS #: Product Code: 1427A / F42-0411

TN1029-0101

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon Toner (Cyan) for CLC700

Product Code: 1427A / F42-0411

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

Supplier: Canon USA, Inc., One Canon Plaza, Lake Success, NY, 11042, USA

Phone #: 1-800-OK-CANON 24 Hr. 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	85-95	None/ None	Not established	Not established	Not established	Not established
Copper compound	Not specified in DFG MAK list		None/ None	Not established	Not established	Not established	1.0mg/m³ (Inhalable fraction) Copper and its compounds
Chromate(1-), bis[3,5-bis(1,1-dimethylethyl)-2-(hydroxykappa.O) benzoato(2-)kappa.O]-, hydrogen, (T-4)-	72869-85-3/ 276-955-4	1-4 (as Cr: 0.1-0.4)	Xn/ R22	Not established	Not established	Not established	Not established

< 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.

HAZARDS IDENTIFICATION **SECTION 3**

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:

Practically non-toxic. 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

Date of Issue: Revised: February 16, 1994 June 14, 2002



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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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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.

rersonal Frotection Edulpments	ection 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: 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(${}^{\circ}$ 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 applicableVapor Density:Not applicable

Density / Specific Gravity: 1.0-1.5

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

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SECTION 10 STABILITY AND	REACTIVITY			
Stability:	Stable Unstable			
Conditions to Avoid:	None			
Materials to Avoid:	Strong oxidizers			
Hazardous Decomposition Products:	CO, CO2			
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 > 5000mg/l	kg			
Eye: Estimate:Rabbit, transient slight	conjunctival irritation only.			
Skin: Estimate:Rabbit, non-irritant				
Sensitization: Guinea pig, skin : Non-sensitizin	ng			
Mutagenicity: Ames Test (Salmonella typhimurium): Negative				
Reproductive Toxicity: Not available				
Carcinogenicity: Not available				
Others: Chronic effects:				
Chrome 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.

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SECTION 12 E	COLOG	GICAL INFORMATION				
Mobility:		Not available				
Persistence / Degradability:		Not available				
Bioaccumulation:		Not available				
Ecotoxicity:		Not available				
Other Adverse Effe	cts:	Not available				
SECTION 13	NICDOCA	I CONSIDERATION				
Method of Disposal: DO NOT put toner or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner container, unless dust-explosion preventing measures are taken. Finely dispersed particles form explosive mixtures in air. Disposal should be subject to federal, state or local laws.						
	TRANSP	ORT INFORMATION				
UN #:	None					
UN Shipping Name :	None None					
UN Classification:	None					
UN Packing Group :	None					
Marine Pollutant:	e Pollutant: ☐ Yes Chemical name (wt%): ☐ No					
Special Precautions	:None					
SECTION 15 REGULATORY INFORMATION						
< EU Information >	•					
Information on the	Label:					
Symbol & Indic	ation: N	ot required				
R-Phrase: Not required						
S-Phrase: Not required						
Dangerous Component(s): None						
Special Precautions under 1999/45/EC Annex V: Safety data sheet available for professional user on request.						
Specific Provisions i 76/769/EEC:	in Relatio Not regu	on to Protection of Man or the Environment:				
(EC)2037/2000:	Not regu	ılated				
(EEC)2455/92:	Not regu	ılated				
Others:	None					
< USA Information >						
Information on the Label:						
Signal Word: Not required						
Hazard warning: Not required						



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Safety Advice:

Not required

Hazardous Component(s):

None

SARA Title III §313:

Chemical Name	Weight %
Copper compounds	1-5
(as Cu)	(0.1-1)
Chromium(III) compounds	1-4
(as Cr)	(0.1-0.4)

California Proposition 65:

Chemical Name Weight %

< 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

R-phrase list:

R22 - Harmful if swallowed.

Revised information from the previous version:

Entirely revised

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, (EEC)2455/92
- 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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