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MATERIAL SAFETY DATA SHEET

MSDS #: TN1037-0101 Product Code: 1439A / F42-0431

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon Toner (Yellow) for CLC700

Product Code: 1439A / F42-0431

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
Pigment	Confidential	1-5	None/ None	Not established	Not established	Not established	Not established
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.

SECTION 3 HAZARDS IDENTIFICATION

EU Classification:

Not classified as dangerous.

Emergency Overview:

Yellow 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



MATERIAL SAFETY DATA SHEET

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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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Canon

MATERIAL SAFETY DATA SHEET

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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)

 ~~~~	<b>Controls:</b>

Use adequate ventilation.

Personal Protection 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: Yellow 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))

Negligible

**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:**  $\underline{1.0-1.5}$ 

Water Solubility:

**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 ANI	REACTIVITY		
Stability:			
Conditions to Avoid:	None		
Materials to Avoid:	Strong oxidizers : CO, CO2		
<b>Hazardous Decomposition Products</b>			
Hazardous Polymerization:	☐ May Occur  ☑ Will Not Occur		
Conditions to Avoid:	None		
SECTION 11 TOXICOLOGIC.	AL INFORMATION		
Acute Toxicity: Inhalation: Not available			
<b>Ingestion:</b> Estimate:Rat, LD50 > 5000mg/	kg		
Eye: Estimate:Rabbit, transient sligh	t conjunctival irritation only.		
Skin:			
Estimate:Rabbit, non-irritant			
<b>Sensitization:</b> Guinea pig, skin: Non-sensitizi	ng		
Mutagenicity: Ames Test (Salmonella typhimu	urium) : Negative		
Reproductive Toxicity: Not available			
Carcinogenicity: Not available			
Others:			
	y response upon chronic inhalation exposure in rats to a toner enriched in ared to commercial toner. No pulmonary change was found at 1 mg/m³ which		

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				
<b>Mobility:</b>		Not available				
Persistence / Degrad	lability:	Not available				
Bioaccumulation: Ecotoxicity: Other Adverse Effects:		Not available				
		Not available				
		Not available				
SECTION 13 D	OISPOSA	L CONSIDERATION				
container, unless	er or tone dust-expl	r container into fire; heated toner may cause severe burns. DO NOT shred a toner osion preventing measures are taken. Finely dispersed particles form explosive hould be subject to federal, state or local laws.				
SECTION 14 T	RANSP	ORT INFORMATION				
UN #:	None					
<b>UN Shipping Name:</b>	None					
UN Classification:	None					
<b>UN Packing Group:</b>	None					
Marine Pollutant:	Yes	Chemical name (wt%):				
<b>Special Precautions</b>	None					
SECTION 15	REGULA	ATORY INFORMATION				
< EU Information >	i					
Information on the	Label:					
Symbol & Indicate	ation: No	ot required				
R-Phrase:						
Not required						
S-Phrase: Not required						
Dangerous Com None	ponent(s	i):				
-		er 1999/45/EC Annex V: able for professional user on request.				
Specific Provisions i 76/769/EEC:	<b>n Relatio</b> Not regu	on to Protection of Man or the Environment:				
(EC)2037/2000:						
, ,	Not regu					
Others:	None					
< USA Information	>					
Information on the l	Label:					
Signal Word:	Not requ	nired				
Hazard warning Not required	g:					



## MATERIAL SAFETY DATA SHEET

MSDS #: TN1037-0101

Product Code: 1439A / F42-0431

Safety Advice:

Not required

**Hazardous Component(s):** 

None

**SARA Title III §313:** 

 Chemical Name
 Weight %

 Chromium(III) compounds
 1-4

 (as Cr)
 (0.1-0.4)

**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

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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