Canon MATERIAL SAFETY DATA SHEET

SECTION 1	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
Product Name:	Canon Starter (Yellow) for CLC700
Product Code:	1471A001AA / F42-0432
Manufacturer:	Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Ph# 03-3758-2111
Supplier:	Canon USA, Inc., One Canon Park, Melville, NY 11747, USA
Phone #:	1-800-OK-CANON 24 Hr. Emergency CHEMTREC # 1-800-424-9300
MSDS #:	TN0072-0505

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)

Chemical Name	CAS #	Weight %	EU Symbol	EU R-Phrase
Ferrite including copper and zinc	66402-68-4	90 - 95	None	None
		(AsCu:10-12)		

Chemical Name	USA OSHA PEL	ACGIH TLV
Ferrite including copper and zinc	Not established	Not established

Chemical Name	EU ILV	DFG MAK
Ferrite including copper and zinc	Not established	1.0mg/m ³ (As Cu and its compounds : Inhalable fraction)



SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS - Continued

Carcinogen			
Chemical Name	CAS #	Reference	
None			
$\overline{O}(1 + \alpha + 1) + \alpha + 1' + \alpha$			
Other Ingredient(s)			
Chemical/Generic Name		Weight %	
Polyester resin		3 - 10	
Pigment		< 1	

SECTION 3 HAZARDS IDENTIFICATION Emergency Overview: Yellowish gray fine powder, slight plastic odor.

Potential Health Ef	fects 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 Condition	ons Generally known to be Aggravated by Exposure: Not determined.



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SECTION 4 FIRST AID MEASURES

First Aid Measu Inhalation:	res: 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:	CO ₂ , 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 Proper	ties:
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))

SECTION 5 FIRE FIGHTING MEASURES - Continued

Canon

Fire and Explosive Proper	rties - Continued:
Autoflammability:	Not applicable.
Explosive Properties:	Can form explosive dust-air mixtures when finely dispersed in air.
Oxidizing Properties:	Not available
Hazardous Combustion Products:	$\overline{\mathrm{CO}_2,\mathrm{CO}}$
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 away from oxidizing materials.

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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:	USA OSHA(TWA/PEL):15mg/m3 (Total dust)		
1		5mg/m3 (Respirable fraction)	
	ACGIH(TWA/TLV):	10mg/m3 (Inhalable particulate)	
		3mg/m3 (Respirable particulate)	
	DFG (MAK) :	4 mg/m3 (Inhalable fraction)	
		1.5 mg/m3 (Respirable fraction) (Also refer to SECTION 2)	

Engineering Controls: Use adequate ventilation.

Personal Protection Ed	quipment(s):	
Respiratory Protection:	Required Required	⊠ Not Required
Eye/Face Protection:	Required	Not Required
Skin Protection:	Required	Not Required

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

.

Appearance:	Yellowish gray 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))	
Autoflammability:	Not applicable.	
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:	4.0 - 5.0	
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	



SECTION 10 STABILITY AND REACTIVITY

Stability			
Stability: Conditions to Avoid	Stable Unstable None.		
Conditions to Avoid	Nolle.		
Materials to Avoid:	Strong oxidizers	Strong oxidizers	
Hazardous Decompo Products:	sition $\overline{\text{CO, CO}_2}$		
Hazardous Polymeri	ation: May Occur 🛛 Will Not Occur		
Conditions to Ave	•		
SECTION 11 TO	ICOLOGICAL INFORMATION		
Acute Toxicity:			
Inhalation:	Not available		
		_	
Ingestion:	Estimate : Rat, LD50 > 5000 mg/kg		
Eye:	Estimate : Rabbit, transient slight conjunctival irritation only.	_	
L)0.	Estimate : Rubbit, transferit singlit conjunctival inflation omy.		
Skin:	Estimate : Rabbit, non irritant.		
Sensitization:	Not available		
Mutagenicity:	mate : Ames Test (Salmonella typhimurium) : Negative		
Reproductive	Not available	_	
Toxicity:			



SECTION 11 TOXICOLOGICAL INFORMATION - Continued

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 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.

SECTION 12 ECOLOGICAL INFORMATION

Mobility:	Not available.
Persistence / Degradability:	Not available.
Bioaccumulation:	Not available.
Ecotoxicity:	Not available.
Other Adverse Effects:	Not available.

SECTION 13 DISPOSAL CONSIDERATION

Method of Disposal: Disposal should be subject to federal, state or local laws.

SECTION 14 TRANSPORT INFORMATION

UN #:	None
UN Shipping Name:	None
UN Classification:	None
UN Packing Group:	None
Special Precautions:	None



SECTION 15 REGULATORY INFORMATION

EU Information: Information on the	Label:				
Symbol &	Not required				
Indication: R-Phrase:	Not required				
S-Phrase:	Not required				
Dangerous Component(s):	None				
Specific Provision	s in Relation to Protection of Man or the Er	nvironment:			
76/769/EEC:	Not regulated.				
(EC)2037/2000:	Not regulated				
(EEC)2455/92:	Not regulated				
Others:	None.				
USA Information: Information on the L	abel				
Signal Word:	Not required				
Hazard warning:	Not required				
Safety Advice:	Not required				
Hazardous Component(s):	None.				
SARA Title III §313 Chemical Nat		Weight %			
	ng copper and zinc	96 wt% (Maximum)			
Copper and compounds(As Copper metal) (12 wt		(12 wt%(Maximum)) (14 wt% (Maximum))			
California Propositi	on 65:				
Chemical Name Weight %		Weight %			
None					

SECTION 16 OTHER INFORMATION

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, 88/379/EEC
- EU Regulation (EC)2037/2000, (EEC)2455/92

Abbreviations:

"EU" stands for European Union.

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

"FHSA" stands for Federal Hazardous Substances Act.

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