

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Product Name: Canon Starter (Magenta) for CLC300

Product Code: F41-6822

Company Name: Canon Europa N.V.

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

Phone #: 03-3758-2111

MSDS #: TN0064-0304

**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 (AsCu:10-12)	None	None

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 <sup>3</sup> (As Cu and its compound : Inhalable fraction)

---

**SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS - Continued**

---

**Carcinogen**

Chemical Name	CAS #	Reference
---------------	-------	-----------

---

No component of this toner is listed as human carcinogen or potential carcinogen in IARC Monographs, NTP, OSHA regulations or Annex I to Directive 67/548/EEC.

**Other Ingredient(s)**

Chemical/Generic Name	Weight %
Polyester resin	3 - 7
Pigment	<1

---

---

**SECTION 3 HAZARDS IDENTIFICATION**

---

Emergency Overview: Magentaish gray 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.

**SECTION 4 FIRST AID MEASURES**

First Aid Measures:

Inhalation: If symptoms are experienced, move victim to fresh air and obtain medical advice.

Ingestion: Rince 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<sub>2</sub>, 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:

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**

---

## Fire and Explosive Properties - Continued:

Autoflammability: Not applicable

Explosive Properties: Can form explosive dust-air mixtures when finely dispersed in air.

Oxidizing Properties: Not available

Hazardous Combustion Products: CO<sub>2</sub>, 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.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Guidelines: USA OSHA(TWA/PEL):15mg/m3 (Total dust)  
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 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:	Magentaish 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:  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 TOXICOLOGICAL INFORMATION**

**Acute Toxicity:**

Inhalation: Not available

---

Ingestion: Estimate : Rat, LD50 > 5000 mg/kg

---

Eye: Estimate : Rabbit, transient slight conjunctival irritation only.

---

Skin: Estimate : Rabbit, non irritant.

---

Sensitization: Not available

---

Mutagenicity: Estimate : Ames Test (Salmonella typhimurium) : Negative

---

Reproductive Toxicity: Not available

---

**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/m<sup>3</sup> 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<sup>3</sup>, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m<sup>3</sup>. 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 & Indication: Not required  
R-Phrase: Not required

S-Phrase: Not required

Dangerous Component(s): None

**Specific Provisions in Relation to Protection of Man or the Environment:**

76/769/EEC: Not regulated

(EC)2037/2000: Not regulated

(EEC)2455/92: Not regulated

Others: None

**USA Information:****Information on the Label**

Signal Word: Not required

Hazard warning: Not required

Safety Advice: Not required

Hazardous Component(s): None

**SARA Title III §313:**

<u>Chemical Name</u>	<u>Weight %</u>
Ferrite including copper and zinc	95 wt% (Maximum)
Copper and compounds(As Copper metal)	(12 wt% (Maximum))
Zinc and compounds(As Zinc metal)	(12 wt% (Maximum))

**California Proposition 65:**

<u>Chemical Name</u>	<u>Weight %</u>
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.

The information, data and recommendations set forth herein (the "Information") are presented in good faith and are believed to be correct as of the date hereof. The company/manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company/manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

Date of Issue: October 5, 1990

Revised Date: December 13, 2000