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

**Product Name:** Canon CLC1000 Starter Yellow  
**Product Code:** 1472A  
**Manufacturer:** Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan  
**Supplier:** Canon USA, Inc., One Canon Park, Melville, NY 11747, USA  
**Phone #:** 1-800-OK-CANON  
**MSDS #:** TN0443-0105

### SECTION 2  COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous Ingredient(s)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Weight %</th>
<th>EU Symbol</th>
<th>EU R-Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrite including copper and zinc</td>
<td>66402-68-4</td>
<td>90 - 95 (AsCu:10-12)</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>USA OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrite including copper and zinc</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EU ILV</th>
<th>DFG MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrite including copper and zinc</td>
<td>Not established</td>
<td>1.0mg/m³ (As Cu and its compounds: Inhalable fraction)</td>
</tr>
</tbody>
</table>
SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS - Continued

<table>
<thead>
<tr>
<th>Carcinogen Chemical Name</th>
<th>CAS #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Ingredient(s)**

<table>
<thead>
<tr>
<th>Chemical/Generic Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester resin</td>
<td>3 - 10</td>
</tr>
<tr>
<td>Pigment</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

SECTION 3 HAZARDS IDENTIFICATION

**Emergency Overview:** Yellowish 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.

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Revised:
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:

Flash Point(°C): Not applicable.

Flammable(Explosive) Limits: Not applicable

Autoignition Temperature(°C): Not available.

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: 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 away from oxidizing materials.

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## SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines:**

- USA OSHA (TWA/PEL): 15 mg/m³ (Total dust)
  - 5 mg/m³ (Respirable fraction)
- ACGIH (TWA/TLV): 10 mg/m³ (Inhalable particulate)
  - 3 mg/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):**

<table>
<thead>
<tr>
<th>Respiratory Protection</th>
<th>☐ Required</th>
<th>✗ Not Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/Face Protection</td>
<td>☐ Required</td>
<td>✗ Not Required</td>
</tr>
<tr>
<td>Skin Protection</td>
<td>☐ Required</td>
<td>✗ Not Required</td>
</tr>
</tbody>
</table>

## SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Yellowish gray fine powder</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight plastic odor</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point/Range(°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point/Range(°C)</td>
<td>100 - 150 (Softening point)</td>
</tr>
<tr>
<td>Decomposition Temperature(°C)</td>
<td>&gt;200</td>
</tr>
<tr>
<td>Flash Point(°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature(°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not-flammable (Test method : Directive 92/69/EEC, A10 Flammability (Solids))</td>
</tr>
<tr>
<td>Autoflammarbility</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Can form explosive dust-air mixtures when finely dispersed in air.</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density / Specific Gravity</td>
<td>4.0 - 5.0</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Fat Solubility</td>
<td>Partially soluble in toluene and xylene.</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/Water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>Negligible</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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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  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

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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

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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:
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrite including copper and zinc</td>
<td>96 wt% (Maximum)</td>
</tr>
<tr>
<td>Copper and compounds (As Copper metal)</td>
<td>(12 wt% (Maximum))</td>
</tr>
<tr>
<td>Zinc and compounds (As Zinc metal)</td>
<td>(14 wt% (Maximum))</td>
</tr>
</tbody>
</table>

California Proposition 65:
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

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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
- DFG, List of MAK and BAT Values

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.
"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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