

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

Product Name: EP-H Color Laser Toner Cartridge Cyan

Product Code: 1504A002AA

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                      24 Hr. Emergency CHEMTREC # 1-800-424-9300

MSDS #: TC0306-0202

**SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS**

**Hazardous Ingredient(s)**

Chemical Name	CAS #	Weight %	EU Symbol	EU R-Phrase
Titanium dioxide	13463-67-7	<2	None	None
Copper compound	Not specified in DFG MAK list	3-7 (as Cu:0.3-0.7)	None	None

Chemical Name	USA OSHA PEL	ACGIH TLV
Titanium dioxide	15mg/m3 (Total dust:TWA)	10mg/m3(TWA)
Copper compound	Not established	Not established

Chemical Name	EU ILV	DFG MAK
Titanium dioxide	Not established	1.5mg/m3 (respirable fraction)
Copper compound	Not established	1.0mg/m <sup>3</sup> Copper and its compounds (Inhalable fraction)

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

**Carcinogen**

Chemical Name	CAS #	Reference
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No components 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 %
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Polyester resin	85-95
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**SECTION 3 HAZARDS IDENTIFICATION**

**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 based on animal testing. 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: 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<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))

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**SECTION 5 FIRE FIGHTING MEASURES - Continued**

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## 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

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

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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.

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**SECTION 7 HANDLING AND STORAGE**

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Handling: Avoid breathing dust.  
Use with adequate ventilation.Storage: Keep out of the reach of children.  
Keep away from oxidizing materials.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Guidelines: SA 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:	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(°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:	1.0-1.4
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

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Materials to Avoid: Strong oxidizers

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Hazardous Decomposition Products: CO, CO<sub>2</sub>

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Hazardous Polymerization:  May Occur  Will Not Occur  
 Conditions to Avoid: None

**SECTION 11 TOXICOLOGICAL INFORMATION**

Acute Toxicity:  
 Inhalation: Not available

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Ingestion: Rat, LD50 > 5000mg/kg

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Eye: Rabbit, transient slight conjunctival irritation only.

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Skin: Rabbit, non irritant.

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Sensitization: Not available

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Mutagenicity: Ames Test (Salmonella typhimurium) : Negative

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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: DO NOT put toner or toner cartridge into fire ; heated toner may cause severe burns . DO NOT shred a toner cartridge, 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.

**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:**

Chemical Name	Weight %
Chromium(III) and compounds (As Cr(III) metal)	5wt%(Max) (0.5wt%(Max))
Copper and compounds (As Copper metal)	5wt%(Max) (1wt%(Max))

**California Proposition 65:**

Chemical Name	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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