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## MATERIAL SAFETY DATA SHEET

MSDS #: TN1045-0304

Product Code: 1435A / F42-3121

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

**Product Name:** Canon Toner (Magenta) for CLC1100 series

Product Code: 1435A / F42-3121 Company Name: Canon Europa N.V.

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

Use of the Product: Toner for electrophotographic apparatus

## SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

| < Ingredient(s) ><br>Chemical Name /<br>Generic Name                       | CAS #/<br>EC #           | Weight                     | EU Symbol/<br>R-Phrase | USA<br>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 |
| Hydrogen<br>bis[3,5-di-tert-butylsalicyl<br>ato(2-)-O1,O2]chromate(1<br>-) | 72869-85-3/<br>276-955-4 | 1-6<br>(as<br>Cr: 0.1-0.6) | 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:**

Magenta 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:**

Low acute toxicity. 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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### 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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MSDS #: TN1045-0304 Product Code: 1435A / F42-3121

| SECTION 8 EXPOS  | SURE CONTR                       | OLS / PERSONAL PROTECTION  |  |  |
|--|----------------------------------|--|--|--|
| <b>Exposure Guidelines:</b>  |                                  |  |  |  |
| USA OSHA PEL (TWA)<br>ACGIH TLV (TWA):<br>DFG (MAK):<br>(Also refer to SECTION 2 | 10 mg/m³ (Inha<br>4 mg/m³ (Inhal | tal dust), 5 mg/m³ (Respirable fraction) alable fraction), 3 mg/m³ (Respirable fraction) able fraction), 1.5 mg/m³ (Respirable fraction) |  |  |
| Engineering Controls: Use adequate ventilation                                   |                                  |  |  |  |
| Personal Protection Equip  | ment(s):                         |  |  |  |
| Respiratory Protection   | Required  Not Requ               | ired   |  |  |
| Eye/Face Protection:   | ☐ Required  ☑ Not Required       |  |  |  |
| Skin Protection:   | ☐ Required  Not Required         |  |  |  |
| SECTION 9 PHYSI  | CAL AND CH                       | EMICAL PROPERTIES  |  |  |
| Appearance:  |                                  | Magenta fine powder  |  |  |
| Odor:  |                                  | Slight plastic odor  |  |  |
| pH:  |                                  | Not applicable   |  |  |
| Boiling Point/Range(°C):   |                                  | Not applicable   |  |  |
| Melting Point/Range(°C):   |                                  | 85-120 (Softening point)   |  |  |
| Decomposition Temperature (°C):  |                                  | > 200  |  |  |
| Flash Point(°C):   |                                  | Not applicable   |  |  |
| Flammable (Explosive) Limits:  |                                  | Not applicable   |  |  |
| <b>Autoignition Temperature</b> (°C):  |                                  | Not available  |  |  |
| Flammability:  |                                  | Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids))  |  |  |
| <b>Explosive Properties:</b>   |                                  | Can form explosive dust-air mixtures when finely dispersed in air.   |  |  |
| Oxidizing Properties:  |                                  | Not available  |  |  |
| Vapor Pressure:  |                                  | Not applicable   |  |  |
| Vapor Density:   |                                  | Not applicable   |  |  |
| <b>Density / Specific Gravity:</b>   |                                  | 1.0-1.5  |  |  |
| Water Solubility:  |                                  | Negligible   |  |  |
| Fat Solubility:  |                                  | Partially soluble in toluene and xylene.   |  |  |
| $\label{partition} \textbf{Partition Coefficient (n-Octanol/Water):}$            |                                  | Not applicable   |  |  |
| Percent Volatile:  |                                  | Negligible   |  |  |
| <b>Evaporation Rate:</b>   |                                  | Not applicable   |  |  |
| Viscosity (mPa s):   |                                  | Not applicable   |  |  |

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## MATERIAL SAFETY DATA SHEET

MSDS #: TN1045-0304 Product Code: 1435A / F42-3121

| SECTION 10 STABILITY AND                               | REACTIVITY  |  |  |
|--|---|--|--|
| Stability:   | Stable     Unstable   |  |  |
| Conditions to Avoid:                                   | None  |  |  |
| Materials to Avoid:                                    | Strong oxidizers  |  |  |
| ${\bf Hazardous\ Decomposition\ Products:}$            | CO, CO2   |  |  |
| Hazardous Polymerization:                              | ☐ May Occur  ☑ Will Not Occur   |  |  |
| Conditions to Avoid:                                   | None  |  |  |
| SECTION 11 TOXICOLOGICA                                | AL INFORMATION  |  |  |
| Acute Toxicity: Inhalation: Not available              |   |  |  |
| <b>Ingestion:</b> Estimate: Rat, LD50 > 2000 mg/       | kg (See Section 16)   |  |  |
| Eye: Estimate: Rabbit, transient slight                | conjunctival irritation only. (See Section 16)  |  |  |
| Skin: Estimate: Rabbit, non-irritant (Se               | ee Section 16)  |  |  |
| <b>Sensitization:</b> Estimate: Guinea pig, skin: Non- | -sensitizing (See Section 16)   |  |  |
| Mutagenicity:  Ames Test (S. typhimurium, E. c.        | coli): Negative   |  |  |
| Reproductive Toxicity: Not available                   |   |  |  |
| Carcinogenicity: Not available                         |   |  |  |
| Others:  |   |  |  |
|  | response upon chronic inhalation exposure in rats to a toner enriched in red to commercial toner. No pulmonary change was found at 1 mg/m³ which is |  |  |

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  $1~\text{mg/m}^3$  which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at  $4~\text{mg/m}^3$ , and a mild to moderate degree of fibrosis was observed in 92% of the animals at  $16~\text{mg/m}^3$ . 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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# MATERIAL SAFETY DATA SHEET

MSDS #: TN1045-0304 Product Code: 1435A / F42-3121

| SECTION 12 E  | COLOGICAL INFORMATION  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Mobility:</b>  | Not available  |  |  |  |  |
| Persistence / Degrad  | Not available  |  |  |  |  |
| <b>Bioaccumulation:</b>                                     | Not available  |  |  |  |  |
| Ecotoxicity:  | Estimate: Fish (Rainbow trout), 96h LL50 > 1000 mg/l (WAF)" Estimate: Crustaceans (Daphnia magna), 48h EL50 > 1000 mg/l (WAF) Estimate: Algae (Scenedesmus subspicatus), EbL50(72h), ErL50(0-72h) > 1000 mg/l (WAF)(See Section 16)          |  |  |  |  |
| Other Adverse Effec   | Not available Not available  |  |  |  |  |
| SECTION 13 D  | DISPOSAL CONSIDERATIONS  |  |  |  |  |
| container, unless of  | r or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner lust-explosion preventing measures are taken. Finely dispersed particles form explosive mixtures ould be subject to federal, state and local laws. |  |  |  |  |
| SECTION 14  | TRANSPORT INFORMATION  |  |  |  |  |
| UN #:   | None   |  |  |  |  |
| <b>UN Shipping Name:</b>                                    | None   |  |  |  |  |
| UN Classification:  | None   |  |  |  |  |
| <b>UN Packing Group:</b>                                    | None   |  |  |  |  |
| Marine Pollutant:   | ☐ Yes Chemical name (wt%):  ☒ No   |  |  |  |  |
| <b>Special Precautions:</b>                                 | None   |  |  |  |  |
| SECTION 15  | REGULATORY INFORMATION   |  |  |  |  |
| < EU Information ><br>Information on the<br>Symbol & Indica | Label: ation: Not required   |  |  |  |  |
| R-Phrase: Not required                                      |  |  |  |  |  |
| S-Phrase: Not required                                      |  |  |  |  |  |
| Dangerous Com Not required                                  | ponent(s):   |  |  |  |  |
| -   | ons under 1999/45/EC Annex V:<br>eet available for professional user on request.   |  |  |  |  |
| Specific Provisions   | in Relation to Protection of Man or the Environment:   |  |  |  |  |
| 76/769/EEC:   | Not regulated  |  |  |  |  |
| (EC)2037/2000:  | Not regulated  |  |  |  |  |
| (EC)304/2003:   | Not regulated  |  |  |  |  |
| Others:   | None   |  |  |  |  |

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### MATERIAL SAFETY DATA SHEET

MSDS #: TN1045-0304 Product Code: 1435A / F42-3121

< USA Information >

Information on the Label under OSHA:

Signal Word: Not required

**Hazard warning:** 

Not required

Safety Advice:

Not required

**Hazardous Component(s):** 

Not required

SARA Title III §313:

Chemical NameWeight %"Chromium(III) Compounds"1-6

(0.1-0.6)

**California Proposition 65:** 

Chemical Name Weight %

None

< Canada Information >

WHMIS Controlled Product: Not applicable

< Australia Information >

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC.

### SECTION 16 OTHER INFORMATION

Estimate: Estimate based on test data on similar toner/developer/drum and/or the raw materials of this product.

R phrase list: R22 - Harmful if swallowed.

Revised information from the previous version: Section 12 and 15

## Literature Reference:

- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40 CFR 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, (EC)304/2003
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]

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Abbreviations:

EU: European Union.

OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA). ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists. EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC and 2000/39/EC.

DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.

TWA: Time Weighted Average. STEL: Short Term Exposure Limit.

IARC: International Agency for Research on Cancer. NTP: National Toxicology Program (USA).

WAF: Water Accommodated Fraction

LL: Lethal Loading rate EL: Effective Loading rate

OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).

FHSA: Federal Hazardous Substances Act (USA).

WHMIS: Workplace Hazardous Materials Information System. NOHSC: National Occupational Health and Safety Commission.

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