

**Material Safety Data Sheet**  
**In according to the Regulation (CE) n. 1907/2006 REACH**  
data Rev. Date:29/05/2015  
Data Sheet B1184in Rev. n. 0

**1. Identification of the Product and of the Company**

<b>Product name:</b>	<b>Toner cartridge C d-Color MF3503/3504</b>
<b>Code number:</b>	B1184
<b>Product description:</b>	Cyan toner.
<b>Company name:</b>	Olivetti S.p.A. Via Jervis 77 10015 Ivrea (TO) - ITALY
<b>For information:</b>	Tel. 0039 (0)125 775710 Fax 0039 (0)125 775711 e-mail : <a href="mailto:supplies@olivetti.com">supplies@olivetti.com</a>
<b>For emergency:</b>	Centro Antiveleni-Ospedale Niguarda (Milano) 0039 (0)2 66101029

**2. Hazards identification**

Classification: Not classified as dangerous in according to the Regulation EC n°1272/2008

Emergency Overview: Black powder (mean dia. is 5-10um by volume ).  
Almost oderless.

Most Important Hazards and Effects of the Products

**Ingestion Effect:** None currently known.

**Inhalation Effect:** None currently known. Minimal respiratory tract irritation may occur as with exposure to large amount of any non-toxic dust.

**Eye Effect:** None currently known.

**Skin Effect:** None currently known.

**Chronic Effects:** Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in inhalation of excessive dust.

**Environment Hazards:** No data are available on the adverse effects of this product on the environment.

**Specific Hazards:** Dust explosion (like most finely divided organic powders)

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### 3. **Composition/information on ingredients**

Substance [ ] Preparation [ X ]

Chemical name	Weight %	CAS number	EINECS number	EU classification
Polyester resin	75-85	+++	+++	Not classified
Organic Pigment	1-5	1333-86-4	215-609-9	Not classified
Silica amorphous	1-5	7631-86-9	231-545-4	Not classified
Titanium dioxide	<1	13463-67-7	236-675-5	Not classified

+++ : Supplier's confidential information

### 4. **First – aid measures**

- Ingestion:** Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.
- Inhalation:** Move victim to fresh air immediately. If symptoms occur, get medical attention.
- Eye contact:** Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.
- Skin contact:** Wash with water and mild soap.

### 5. **Fire – fighting measures**

- Suitable Extinguishing Media:** CO<sub>2</sub>, water spray, foam and dry chemical.
- Suitable Extinguishing Media to Avoid:** Full water jet
- Fire and Explosion Hazards:** If dispersed in air, like most finely divided organic powders, may form an explosive mixture.
- Protection of fire-fighters:** Use self-contained breathing apparatus (SCBA)

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### 6. **Accidental release measures**

<b>Personal precautions:</b>	None
<b>Environmental precautions:</b>	None.
<b>Methods for Cleaning-up:</b>	Wear personal protective equipment (See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

### 7. **Handling and storage**

<b>Handling:</b>	
Technical Measures:	None
Precautions:	Do not breathe dust. Avoid contact with eyes.
Safe Handling Advice:	Try not to disperse the particulates.
<b>Storage:</b>	
Technical Measures:	None
Storage Conditions:	Keep container closed. Store in a cool and dry place. Keep out of reach of children.
Incompatible Products:	None
Packaging Materials:	Bottles or Cartridge designated

### 8. **Exposure controls/personal protection**

<b>Ventilation:</b>	None required with intended use
<b>Hygiene measures:</b>	Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.
<b>Exposure limit value:</b>	ACGIH TLV-TWA Inhalable fraction 10mg/mc3, Respirable Fraction 3mg/mc3 Titanium dioxide 10 mg/mc3 OSHA PEL-TWA Total dust 15 mg/mc3, Respirable Fraction 5 mg/mc3, Amorphus Silica 80 mg/mc3%SiO2, Titanium Dioxide 15 mg/mc3
<b>Personal Protective Equipment:</b>	Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

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**9. Physical and chemical properties**

Physical state:	Solid
Form:	Powder (mean dia. Is 5-10 um by volume)
Color:	Cyan
pH	Not applicable
Odor:	Almost odorless
Boiling point (°C)	Not applicable
Melting point (°C / [F]):	100-120°C
Flash Point (°C):	Not applicable
Ignition Temperature (°C)	No data available
Vapor Pressure:	Not applicable
Specific Gravity:	1,2 -1,4 g/cm3
Solubility:	Insoluble in water
Partition Coefficient, n-Octanol/Water:	Not applicable

**10. Stability and reactivity**

<b>Stability:</b>	Stable except above 200 °C (392 F).
<b>Hazardous Reactions:</b>	Dust explosion, like most finely divided organic powders.
<b>Conditions to avoid:</b>	Electric discharge, throwing into fire.
<b>Materials to Avoid:</b>	Oxidizing materials.
<b>Hazardous decomposition products:</b>	CO, CO <sub>2</sub> , NO <sub>x</sub> and smoke. Hazardous Polymerization: Will not occur.

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### **11. Toxicological information**

**Acute Toxicity:**

Ingestion(oral), LD50(mg/kg): >2000 (Rat)  
Dermal, LD50(mg/kg): >2000 (Rat)  
Inhalation, LC50(mg/l): >5 (Rat,4hour)  
(This was the highest attainable concentration)  
Eye irritation: Minimal irritant (Rabbit)  
Skin irritation: Mild irritant (Rabbit)

**Skin sensitizer:** Non sensitizer (Guinea pig)

**Local Effects:** see Chronic Toxicity or Long term Toxicity

**Chronic Toxicity or Long Term Toxicity:**

In a two-year inhalation study of chronic toxicity and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1mg/m3), the most relevant level to potential human exposures. A minimal to mild degree of fibrosis was noted in 22% of the animals at the middle exposure level (4mg/m3), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level(16mg/m3). The lung changes observed in the higher exposure groups are interpreted in terms of "lung overloading", a series of generic responses to the presence of large quantities of respirable, insoluble and relatively benign dusts retained for extended time periods in the lungs. Lung tumor frequency was unchanged among rats exposed to toner at the three exposure levels, and for air-only control rats.

**Carcinogenicity:**

In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This evaluation is given to Carbon Black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

**Mutagenicity:** Negative(AMES test)

### **12. Ecological information**

No data are available on the adverse effects of this material on the environment.

Ecotoxicity: No data available  
Mobility: No data available  
Persistence and degradability: No data available  
Bioaccumulative potential: No data available

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**13. Disposal considerations**

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

**14. Transport information**

Information on Code and Classifications According to International Regulations

UN Classification: None

**15. Regulatory information**

**EU regulations**

Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments.

<b>Symbol and Indication :</b>	Not required.
<b>R-Phrase :</b>	Not required.
<b>S-Phrase :</b>	Not required.

**16. Other information**

This Material Safety Data Sheet was prepared in according to the Regulation (CE) n. 1907/2006 REACH and Regulation EC n°1272/2008.

This information adds to those contained in the 'Instructions of use' for same product, but does not substitute them.

The information contained herein relates only to the referred product as manufactured and put into the market, and is not valid for other combinations of same materials.

It is the user's responsibility to determine the suitability of such information for his intended use.