

**Material Safety Data Sheet**  
**In according to the Regulation (CE) n. 1907/2006 REACH**  
Printing: 13/10/2010 Data sheet : B0891 in Rev. n. 1 - data Rev. Date: 28/11/2018

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

<b>Product name:</b>	<b>Toner cartridge K d-Color MF3000</b>
<b>Code number:</b>	B0891
<b>Product description:</b>	Black 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

**LABEL ELEMENTS**

Precautionary pictograms	---
Signal word:	---
Hazard Statement:	---
Precautionary Statements	---

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



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### 3. Composition/information on ingredients

Chemical name	Weight %	CAS number
Styrene acrylic resin	75-85	+++
Wax	10-20	+++
Carbon Black	1-10	1333-86-4
Silica amorphous	1-10	7631-86-9

+++ : Supplier's confidential information

Chemical Name: Carbon black

CAS No.: 1333-86-4

EINECS-No.: 215-609-9

REACH Registration number: 01-2119384822-32-XXXX

IARC Monographs: Group 2B

Symbol(EC): Not listed H code(EC): Not listed

### 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:** CO2, 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**

**Personal precautions:** None

**Environmental precautions:** None.

**Methods for Cleaning-up:** 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**

#### **Handling:**

Technical Measures: None  
Precautions: Do not breathe dust.  
Avoid contact with eyes.  
Safe Handling Advice: Try not to disperse the particulates.

#### **Storage:**

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



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### 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.
Control Parameters (As total dust)	
ACGIH-TLV (USA):	10mg/m3(Inhalable particles), 3.0 mg/m3 (Respirable particles)
OSHA-PEL (USA):	15mg/m3(Total dusts), 5.0 mg/m3(Respirable fraction)
Worksafe-TWA (Austl.):	10mg/m3
Control Parameters (Carbon black)	
ACGIH-TLV (USA):	3mg/m3
OSHA Z-Table (USA):	3.5mg/m3
Worksafe-TWA (Austl.):	3mg/m3
<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.

### 9. Physical and chemical properties

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



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### **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.
<b>Hazardous Polymerization:</b>	Will not occur.

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### **11. Toxicological information**

#### **Acute Toxicity:**

Ingestion(oral), LD50(mg/kg): >2500 (Rat)  
Dermal, LD50(mg/kg): no data available  
Inhalation, LC50(mg/l): >5.10 (Rat,4hour)  
(This was the highest attainable concentration)  
Eye irritation: Non irritant (Rabbit)  
Skin irritation: Non 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/m<sup>3</sup>), 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/m<sup>3</sup>), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level(16mg/m<sup>3</sup>). 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)

**Teratogenicity:** No data available



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**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

**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**

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer, Annex I and Annex II: Not listed

Regulation (EC) No 850/2004 on persistent organic pollutants, Annex I as amended: Not listed

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals, Annex I and Annex V as amended: Not listed.

Regulation (EC) No 1907/2006 REACH, Annex XVII as amended (Restrictions on use): Not listed.

Regulation (EC) No 1907/2006 REACH, Annex XIV as amended (Authorisations): Not listed.



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### **16. Other information**

This Material Safety Data Sheet was prepared in according to the Regulation (CE) n. 1907/2006 REACH, Regulation EC n°1272/2008 and Regulation 830/2015.

Changes from the previous version:

- update section n. 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

IARC: International Agency for Research on Cancer

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka, and R.Mermelstein(1991)

Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp.280-299.

NIOSH CURRENT INTELLIGENCE BULLETIN :Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide :DRAFT

Restrictions:

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