

Material Safety Data Sheet
In accordino to the Regulation (CE) n. 1907/2006 REACH
Issue date: 15/09/2009 data Rev. Date: 15/09/2009
Data Sheet B0841in Rev. n. 0

1. Identification of the Product and of the Company

Product name:	Toner Cartridge Black MF360
Code number:	B0841
Product description:	Toner
Company name:	Olivetti S.p.A. Via Jervis 77 10015 Ivrea (TO) - ITALY
For information:	Tel. 0039 (0)125 522710 Fax 0039 (0)125 522711 e-mail : supplies@olivetti.com
For emergency:	Centro Antiveleni-Ospedale Niguarda (Milano) 0039 (0)2 66101029

2. Hazards identification

Classification: Not classified as dangerous in according to Directive 67/548/CEE, 1999/45/CE and 2001/60/CE and further modifications.

Most Important Hazards and Effects of the Products

Ingestion Effect:	None currently known
Inhalation Effect:	None currently known. Minimal respiratory tract irritation may cause 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]

Major ingredients:

Chemical name	Weight %	CAS number	EINECS number
Styrene acrylate resin	65-75	+++	+++
Ferrite – Iron oxide	10-20	1309-97-1	215-168-2
Manganese Oxide	1-10	1344-43-0	215-695-8
Wax	1-10	+++	+++
Carbon Black	1-10	1333-86-4	215-609-9
Wax-2	1-10	+++	+++
Amorphous silica	1-10	7631-86-9	231-545-4
Titanium dioxide	<1	13463-67-7	236-675-5

+++ : 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: CO₂, Water spray, Foam and Dry Chemical

Extinguishing Media to avoid: Full water jet

Fire and Extinguishing Hazards: If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

Protection of Firefighters: 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 equipment with High Efficiency Particulate Air (HEPA) filter. Vacuum should be electrically bonded and grounded to dispel 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.

8. Exposure controls/personal protection

Engineer Measures

Ventilation: Not required with intended use.

Control Parameters

Total Dust and Titanium Dioxide

OSHA-PEL (USA): 15 mg/m³
Worksafe-TWA (Austl.): 10 mg/m³
ACGIH-TLV (USA): 10 mg/m³
DFG-MAK (GER): 4 mg/m³

Carbon Black

OSHA-PEL (USA): 3.5 mg/m³
Worksafe-TWA (Austl.): 3 mg/m³
ACGIH-TLV (USA): 3.5 mg/m³

Personal Protective Equipment:

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and may be required.

Hygiene measures: Wash hands after handling.

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9. Physical and chemical properties

Physical state:	Solid
Form:	Powder (mean dia. Is 5-10um by volume)
Color:	Black
Odour:	Almost Odorless
pH	Not applicable
Boiling Point (°C):	Not applicable
Melting Point (°C):	No data available
Flash Point (°C):	Not applicable
Ignition Temperature (°C):	No data available
Explosion Properties:	No data available
Vapour Pressure:	Not applicable
Specific Gravity:	1.2
Solubility:	Insoluble in water
Partition Coefficient, n-Octanol/Water:	Not applicable

10. Stability and reactivity

Stability:	Stable except above 200°C (392 F).
Hazardous Reactions:	Dust Explosion, like most finely divided organic powders.
Condition to avoid:	Electric discharge, throwing into fire.
Materials to avoid:	Oxidizing materials.
Hazardous decomposition products:	CO, CO ₂ , NO _x and smoke.
Hazardous Polymerization:	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 LD50 (mg/kg): 5.17 (Rat, 4 hours)*
(This was the highest attainable concentration).
Eye irritation: Minimal irritant (Rabbit)*
Skin irritation: Mild irritant (Rabbit)*
Skin sensitization: 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 and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1 mg/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 (4 mg/m³), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level (16 mg/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 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 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-years cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

In 2006 IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for prolonged interval. Use of product, as intended, does not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of respiratory tract beyond general effects of dust.

Mutagenicity: Negative (AMES test)

Teratogenicity: No data available

(* = Based on data for other products with similar ingredients)

12. Ecological information

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

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13. Disposal considerations

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

14. Transport information

Information on Code and Classification According to International Regulations
UN Classification: None

15. Regulatory information

EU Information

Information on the label (1999/45/EC and 67/548/EEC): Not required
Article 14 (2.1) of Directive 1999/45/EC is not applicable to this product.

US Information

Information on the label: Not required
TSCA (Toxic Substances Control Act): all chemical substance in this product comply with all applicable rules or order under TSCA.
California Proposition 65: This product contains no chemical substance subject to California Proposition 65.

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16. Other information

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

Abbreviation

ACGIH:	American Conference of Governmental Industrial Hygienists
PEL	Permissible Exposure Limit
OSHA	Occupational Safety and Health Administration
TLV	Threshold Limit Value
TWA	Time Weighted Average
MAK:	MAK (Maximale Arbeitsplatzkonzentrationem) under Deutsche Forschungsgemeinschaft
IARC:	International Agency for Research on Cancer
TSCA:	Toxic Substances Control Act(USA)