Material Safety Data Sheet

In according to the Regulation (CE) n. 1907/2006 REACH

Issue date: 29/07/2011 data Rev. Date: 29/07/2011

Data Sheet B0983in Rev. n. 0

1. Identification of the Product and of the Company

Product name:	**TONER CARTRIDGE d-Copia 6500MF 8000MF**
Code number:	**B0983**
Product description:	Cartridge containing black toner powder
Company name:	Olivetti S.p.A. Via Jervis 77 10015 Ivrea (TO) - ITALY
For information:	Tel. 0039 (0)125 775710 Fax 0039 (0)125 775711 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 in according to the Regulation (CE) n.1272/2008 , 1999/45/CE and 2001/60/CE and further modifications.

Other information on hazards

Ingestion:	Ingestion is not applicable route of entry for intended use.
Inhalation:	Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in inhalation of excessive dusts.
Eye Contact:	May cause transient eye irritation.
Skin Contact:	Unlikely to cause skin irritation.

3. Composition/information on ingredients

Substance [ ] Preparation [X]

Chemical Name	% w/w	CAS number	EINECS number
Polyester resin	65-75	+++	-
Carbon black	5-10	1333-86-4	215-609-9
Ferrite (Ferrite including Manganese)	1-10 (Mn <2)	66402-68-4	-
Amorphous silica	1-5	7631-86-9	231-545-4
Titanium dioxide	<1	13463-67-7	236-675-5

+++: Supplier's confidential information

4. First – aid measures

Inhalation: Remove from exposure to fresh air and gargle with plenty of water. Consult a doctor in case of such symptoms as coughing.

Skin contact: Wash with soap and water

Eye contact: Flush with water immediately and see a doctor if irritating.

Ingestion: Rinse out the mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

5. Fire- fighting measures

Extinguishing Media: Water (Sprinkle with Water), Foam, Powder, CO_2 or Dry Chemical Extinguisher

Fire-Fighting Procedure: Pay attention not to blow away toner powder. Drain water off around and decrease the atmosphere temperature to extinguish the fire.

6. Accidental release measures

Personal precautions: Avoid inhalation, ingestion, eye, skin contact in case of accindental toner release.

Environmental precautions: Do not release into drains and surface water.

Methods for Cleaning-up: Gather the released toner not to blow away and wipe up with a wet cloth.

7. Handing and storage

Handing: Never open the toner container.

Storage: Keep the toner container tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

8. Exposure controls/personal protection

Engineer Measures

Ventilation: Ventilator is not require under normal use.

Control Parameters

ACGIH-TLV (2008)-TWA: Inhalable fraction 10 mg/m^3, Respirable fraction 3 mg/m^3
Manganese compounds (Ferrite component) 0.2mg/ m^3
Carbon black 3.5mg/m^3 Titanium dioxide 10mg/m^3

OSHA-PEL (2006)-TWA: Total Dust 15 mg/m^3, Respirable fraction 5 mg/m^3
Manganese compounds (Ferrite component) 5mg/ m^3 (Ceiling) (as Mn)
Carbon black 3.5mg/m^3 , Amorphous silica 80mg/m^3/%SiO_2
Titanium dioxide 15mg/m^3(total dust)

DFG-MAK: Inhalable fraction 4mg/m^3, Respirable fraction 1.5mg/m^3
Manganese compounds (Ferrite component) 0.5mg/ m^3 (Inhalable fraction)
Amorphous silica 4mg/m^3 (Inhalable fraction)

Protective Equipment: Respiratory protection, eye protection, hand protection, skin and body protection are not required under normal use.

Hygiene measures: Wash hands after handling

9. Physical and chimica properties

Physical state:	Solid
Form:	Fine powder
Color:	Black
Odour:	Odorless
pH:	Not applicable
Melting Point:	100-120°C [Toner]
Explosion Properties:	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density:	1.2-1.4 g/cm^3 [Toner]
Solubility:	Almost insoluble in water

10. Stability and reactivity

Stability/Reactivity: Stable under normal use.

Hazaurdous Decomposition Products: None

11. Toxicological information

Acute oral toxicity: (rat) LD_{50}>2,000mg/kg
(Estimated from other products containing same materials) [Toner]
(rat)LD_{50}>2,500mg/kg
(Estimated from the data of constituent materials) [Carrier]

Acute dermal toxicity: (rat)LD_{50}>2,000mg/kg
(Estimated from other products containing same materials) [Toner]
(rat)LD_{50}>2,000mg/kg
(Estimated from the data of constituent materials) [Carrier]

Acute inhalation toxicity: (rat)LC_{50}(4h) >5.0mg/l
(Estimated from other products containing same materials) [Toner]

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11. Toxicological information

Acute eye irritation: (rabbit) Minimal irritant
(Estimated from other products containing same materials) [Toner]

Acute skin irritation: (rabbit) Non-irritant
(Estimated from other products containing same materials) [Toner]
(rabbit) Non-irritant
(Estimated from the data of constituent materials) [Carrier]

Skin sensitisation: (mouse) Non-sensitiser
(Estimated from other products containing same materials) [Toner]
(guinea pig) Non-sensitiser
(Estimated from the data of constituent materials) [Carrier]

Mutagenicity: Ames test is negative [Toner]
Ames test is negative
(Estimated from the data of constituent materials) [Carrier]
No mutagen, according to MAK, TRGS905 e (EC)No 1272/2008 Annex VI table 3.2.

Reproductive Toxicity: No reproductive toxicant, according to MAK, California Proposition 65, TRGS 905(EC)No 1272/2008 Annex VI table 3.2.

Carcinogenicity: No cancinogen or potential cancinogen, (except carbon black and titanium dioxide) according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, California Proposition 65, TRGS 905 and (EC)No 1272/2008 Annex VI table 3.2.

The IARC reevaluated Carbon black and titanium dioxide as a Group 2B carcinogen (possibly carcinogenic humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity. The evaluation of carbon black is based upon the development of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung. The studies performed in animal models other then 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 the animal chronic inhalation studies for titanium dioxide, the lung tumor was observed in only rats. It is estimated that is attributed to the overload of rat's lung clearance mechanism (overload phenomenon). The inhalation of excessive titanium dioxide dose not occur in normal use of this product. Also, epidemiological studies to date have not revealed any evidence of the relation between occupational exposure to titanium dioxide and respiratory tract disease.

Chronic effect: In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m^3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4 mg/m^3) exposure group. But no pulmonary change was reported in the lowest (1mg/m^3) exposure group, the most relevant level to potential human exposures.

Other information: None

12. Ecological information

No data available.

13. Disposal consideration

Do not incinerate toner and toner containers. Dangerous sparks may cause burn.

Any disposal practice should de done under conditions wich meet local, state and federal laws and regulations relating to waste (contact local or state environmental agency for specific rules).

14. Transport information

UN Shipping name, UN Classification, UN Packing Group, Special Precautions : None

15. Regulatory information

EU Information

Information on the label (1999/45/EC and 67/548/EEC): Not required

US Information

All components in this product comply with order under TSCA

16. Other information

This Material Safety Data Sheet was prepared in according to the Regulation (CE) n. 1907/2006 REACh and Regulation 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 determinate the suitability of such information for his intended use.

<Abbreviation>

ACGIH:	American Conference of Governamental Industrial Hygienists
PEL:	Permissible Exposure Limit
OSHA:	Occupational Safety and Health Administration
TLV:	Threshold Limit Value
TWA:	Time Weighted Average
MAK:	MAK (Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft
TRGS:	Technische Regeln fur Gefahrstoffe (Deutsche)
IARC:	International Agency for Reserch on Cancer
EPA:	Environmental Protection Agency (USA)
NTP:	National Toxicology Program
ILO:	International Labour Office
UN:	Nnited Nations
TSCA:	Toxic Substances Control Act (USA)

<Reference>

- ISO 11014-1 Safety data sheet for chemical products
- Commission Directive 91/155/EEC and 2001/58/EC
- Regulation (EC) No 1907/2006
- Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats - H.Muhle et.la Fundamental and Applied Toxicology 17.280.299 (1991)
- Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic Inhalation Exposure in Rats – B.Bellmann Fundamental and Applied Toxicology 17.300-313(1991)

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