

MATERIAL SAFETY DATA SHEET
according to 2001/58 EC, EC 1907/2006, EC 1272/2008
Printing: 18-02-2014 date of update: 18-02-2014 Data sheet: B1068in Rev. n. 1

1. Identification of product and company

1.1 Product identifier

Product name: TONER CARTRIDGE(K)D-COLOR MF2552
Product code: B1068

1.2 Relevant identified uses of substance or mixture and use advised against

Product description: Toner Cartridge d-Color MF2552 Black

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

For emergency: Center-Hospital Niguarda (Milano)
0039 (0)2 66101029

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2. Hazard identification

2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in Directives 1999/45/EC, but may have potentially effects on human health.

2.2 Label elements

Not required.

Simbol:

Not required

Phrases-R/H:

Not required

Phrase-S:

No required

Special marking:

Not required

2.3 Other hazards

None

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3 Composition and information on ingredients

3.1 Substances
Information not relevant.

3.2 Mixtures

Substance [☐] Prepared [☒]

Chemical Name	% w/w	CAS number	EINECS number
Polyester resin	70-80	Confidential	-
Carbon black	5-10	1333-86-4	-
Styrene acrylate copolymer	1-5	Confidential	-
Amorphous silica	1-5	7631-86-9	-
Titanium dioxide	< 1	13463-67-7	-

4 First aid measures

4.1 Description of first aid measures

The following are the first aid measures related to substance contained in the product

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

4.2. Most important symptoms and effects, both acute and delayed
For symptoms and effects caused by the contained substances see chapter 11

4.3 Identification of any need to consult your doctor
Follow your doctor's directions in case of eyes irritation and in case of difficulty breathing due at inhalation or ingestion.

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5 Fire fighting measures

5.1. Extinguishing media

Extinguishing media: Water (sprinkle with water), foam, CO₂, powder or Dry Chemical Extinguisher

Special procedures to fight fire: In case of combustion of large amount, wear an autorespirator and protective media. Pay attention not to blow away toner powder. Drain water off around and decrease the atmosphere temperature to extinguish the fire.

5.2 Special hazards arising from the substance or mixture contained in the product
Do not breathe combustion products.

5.3 Advice for fire-fighters

General Information

Cool by spraying with water the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention. Collect extinguishing water must not be discharged into drains. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Equipment

Hardhat with visor, fireproof clothing, a depressurised mask with facemask covering the whole of the operator's face or a self in case of large amount of smoke.

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6 Accidental release measures

6.1 Caution personal protective equipment and emergency procedures

Below are some protective measures in case of accidental release of the substance contained in the product

Personal protection:

Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release.

Clean-up method:

Gather the released toner not to blow away and wipe up with a wet cloth.

6.2 Environmental Precautions

Do not release into drains and surface water.

6.3 Methods and materials for containment and cleaning up not applicable

Not relevant.

7 Handling and storage

7.1 Precautions for safe handling

Handling:

Never open the toner container. Keep away from the reach of children.

7.2 Conditions for safe storage including any incompatibilities

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

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8 Exposure controls and personal protection

8.1 Control parameters

Reference data:

ACGIH TLV-TWA: Inhalable fraction 10 mg/m³, Respirable fraction 3 mg/m³, Carbon black 3.5 mg/m³, Titanium dioxide 10 mg/m³

OSHA PEL-TWA: Total dust 15 mg/m³, Respirable fraction 5 mg/m³, Carbon black 3.5 mg/m³, Amorphous silica 80 mg/m³/ %SiO₂; Titanium dioxide 15 mg/m³ (total dust)

DFG-MAK: Inhalable fraction 4 mg/m³; Amorphous silica 4 mg/m³ (Inhalable fraction)

8.2 Exposure controls

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

Personal protection: Not required under normal use.

Ventilation: Not required under normal use.

Exposure Limits: Not applicable

Prolonged inhalation of excessive dust may cause lung damage. Use of this product as intended does not result in prolonged inhalation of excessive toner dust.

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9 Physical and chemical properties

9.1 Information on basic physical and chemical

Appearance:	Solid, fine powder, color black
Odour:	Odorless
pH:	Not applicable
Boiling point:	Not applicable
Melting point:	100-200°C
Flash point:	Not applicable
Autoignition point:	Not applicable
Explosive properties:	dust explosion is improbable under normal use
Comburent properties:	Not applicable
Vapour pressure:	Not applicable
Density @ 20 °C:	1.2-1.4 g/cm ³
Viscosity @ 25 °C	Not available
Water solubility:	Almost insoluble
Solubility in:	Not available

10 Stability and reactivity

10.1 Reactivity

There are no particular risks of reaction with other substances.

10.2 Chemical stability

The product is stable in normal conditions of use.

10.3 Possibility of hazardous reactions

In normal conditions of use and storage is not hazardous reactions are foreseeable.

10.4 Conditions to avoid

None in particular

10.5 Incompatible materials

Information not available

10.6 Hazardous decomposition products

When heated or in the event of fire, the following can be released gases and vapors potentially dangerous to health

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11 Toxicological information

It is advisable to operate in compliance with the rules of good industrial hygiene.

11.1 Toxicological Information

Acute oral toxicity: (rat) $LD_{50} > 2,000 \text{ mg/kg}$ (estimated from other products containing same materials).

Acute dermal toxicity: (rat) $LD_{50} > 2,000 \text{ mg/kg}$ (estimated Acute oral toxicity for same product).

Acute inhalation toxicity: (rat) $LC_{50}(4\text{hr}) > 5,0 \text{ mg/l}$ (estimated from other products containing same materials).

Acute eye irritation: (rabbit) Minimal irritant (estimated from other products containing same materials).

Acute skin irritation: (rabbit) Non-irritant (estimated from other products containing same materials).

Skin sensitisation: (mouse) Non-sensitiser (estimated from other products containing same materials).

Mutagenicity:

Ames test is Negative

Information of ingredients: No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 Annex VI Table 3.2.

Reproductive Toxicity

Information of Ingredients: No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and (EC)No 1272/2008 Annex VI Table 3.2

Carcinogenicity

Information of ingredients: No carcinogen or potential carcinogen, (except carbon black and titanium dioxide) according to AIRC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS905 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 to humans) as the result of inhalation exposure test in tars. But, oral/skin test does not show carcinogenicity (IARC Monograph of the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93). The evaluation of carbon black is based upon the development of lung tumors in rat receiving chronic inhalation exposure to free carbon black at level that induce particle overload of the lung. The studies performed in animal models than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-years cancer bioassay using atypical 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 this 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 diseases.

Chronic effects:

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 (16 mg/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 (1 mg/m^3) exposure group, the most relevant level to potential human exposure.

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12 Ecological information

No data available.

13. Disposal considerations

Do not attempt to incinerate the toner container or unit and the waste toner yourself.
Dangerous sparks may cause burn.
Any disposal practice should be done under conditions which meet local, state and federal laws and regulations relating to waste (contact local or state environmental agency for specific rules).

14. Transport information

Not required.

15 Regulatory information

All components in this product comply with order under TSCA.

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16 Other information

This sheet contains information required as per applicable European Directives 88/379/EEC, 92/32/EEC, 91/155EEC, CE 1907/2006, 2001/58EC and following upgrades.

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.

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

Such information is based on data considered to be as accurate as possible at the date of issue.

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

To best of our Knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

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
NTP:	National Toxicology Program
UN:	United Nations
TSCA:	Toxic Substances Control Act(USA)
EPA:	Environmental Protection Agency (Integrated Risk Information System) (USA)
Proposition 65	California, Safe Drinking Water and Toxic Enforcement Act of 1986
TRGS905	Technische Regeln für Gefahrstoffe (Deutsche)
(EC)No 1272/2008	Regulation (EC) No 1272/2008 on classification, labeling and packaging of substance and mixture (CLP) AnnexVI Table 3.2
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