

1. Identification of the Product and of the Company

Product name:	YELLOW TONER MF 201
Code number:	B0779
Product description:	Yellow toner
Company name:	Olivetti S.p.A. Strada Monte Navale, 2/C 10015 Ivrea (TO) – ITALY
For information:	Tel. 0039 (0)125 775019 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 the Regulation EC n°1272/2008.

LABEL ELEMENTS

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

OTHER HAZARDS

Assessment of PBT/vPvB: No data available.
Dust explosion (like most finely divided organic powders)



3. Composition/information on ingredients

Substance [] Preparation [X]

Major ingredients:

Chemical name	Weight %	CAS number
Styrene acrylic resin	75-85	+++
Wax	10-20	+++
Organic pigment	1-10	+++
Wax-2	1-10	+++
Amorphous silica	1-10	7631-86-9
Titanium dioxide	<1	13463-67-7

+++ : Supplier's confidential information

Chemical Name: Titanium dioxide

CAS No.: 13463-67-7

EINECS-No.: 022-006-00-2 Symbol (EC): Not listed H code (EC): Not listed

REACH registration number: 022-006-00-2

IARC Monographs: Group 2B (H351)

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 mild soap and water.

5. Fire – fighting measures

Suitable Extinguishing Media:	CO2, water spray, foam and dry chemical.
Unsuitable Extinguishing Media:	Full water jet.
Fire and explosion hazards:	If dispersed in air, like most finely divided organic powders, may form an explosive mixture.
Protection of firefighters:	Use self-contained breathing apparatus.

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:	Do not breathe dust. Avoid contact with eyes. Try not to disperse the particulates.
Storage:	Keep container closed. Store in a cool and dry place. Keep out of reach of children.

8. Exposure controls/personal protection

Ventilation: None required with intended use.

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)
DFG-MAK (GER):	4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)
Worksafe-TWA (Austl.)	10mg/m3

Control Parameters (as titanium dioxide)

ACGIH-TLV (USA):	10mg/m3
OSHA Z-Table (USA):	15mg/m3
Worksafe-TWA (Austl.):	10mg/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 respirators may be required.

Hygiene Measures: Wash hands after handling.

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9. Physical and chemical properties

Physical state:	Solid
Form:	Fine Powder
Color:	Yellow
pH:	Not applicable
Odor:	Almost odorless
Boiling point (°C):	Not applicable
Melting point (°C / [F]):	No data available
Flash Point (°C):	Not applicable
Auto-Ignition Temperature (°C):	No data available
Evaporation rate:	No data available
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Specific gravity:	1.2 g/cm3
Upper/lower flammability or explosive limits:	No data available
Solubility:	Insoluble in water
Partition coefficient, n-Octanol/Water:	No data available
Explosive properties:	No data available
Decomposition temperature:	Not applicable

10. Stability and reactivity

Reactivity:	None.
Chemical stability:	Stable except above 200°C (392°F).
Possibility of 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 ₂ , CO, NO _x and smoke.
Hazardous Polymerization:	Will not occur.



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11. Toxicological information

Acute Toxicity:	Ingestion (oral), LD50 Dermal, LD50 (mg/kg): Inhalation, LC50 (mg/l):	(mg/kg): >2500 (Rat) No data available >5.09 (Rat,4hour)
Skin sensitizer:	Non sensitizer (guinea pig).	
Eye irritation:	Non irritant (rabbit).	
Skin irritation/corrosion:	Non irritant (rabbit).	
Local effects:	See chronic toxicity or long term toxicity.	
Carcinogenicity	The IARC reevaluated Titanium Dioxide as a Group 2B carcinogen (H351). 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 a prolonged interval. Use of this 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 the respiratory tract beyond general effects of dust.	
Chronic effect:	Prolonged inhalation of excessive dust may cause lung damage. It is attributed to "lung overloading", a generic response to excessive amounts of dust retained in the lungs for a prolonged interval. Use of this products, as intended, does not result in inhalation of excessive dust. In a study in rats by chronic exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of rats in the high concentration (16mg/m3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m3) exposure group. But no pulmonary change was reported in the lowest (1mg/m3) exposure group, the most relevant level to potential human exposures.	
Other information	No data available	



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

UN Classification:	None.
Further information:	None.
Transporter hazard class(es):	None.
Packing group:	None.
Environmental hazards:	None.
Special precautions for user:	No additional information available.
Transport in bulk according to annex II of MARPOL73/78 and the IBC Code	Not applicable.

15. Regulatory information

EU regulations

Regulation (EC) No 1005/2009 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer, Annex I and Annex 2: Not applicable.

Regulation (EC) No 2019/1021 of the European Parliament and of the Council on Persistent Organic Pollutants (POPs): Not applicable.

Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council:
Annex XIV- List of Substances Subject To Authorization: Not applicable.
Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous, Preparations and Articles: Not applicable.

Regulation (EU) 2015/830 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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. 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16

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:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.