

MATERIAL SAFETY DATA SHEET

(93/112/EEC and ISO 11014)

Number E-182-c-US
Date August 1997
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Océ F3 Toner

1. Product and company identification

Product name Océ F3 Toner
Packing Polyethylene bottle, contents 0,80 kg/1.7 lb
Company Océ-USA, Inc.
Address 5450 North Cumberland Avenue, Chicago, Illinois 60656
Telephone 773-714-8500
Emergency Tel. 1-800-424-9300 (24-Hour Safety Data Information)

2. Composition / information on ingredients

Ingredients	CAS No.	Weight %
Polyester resin	170831-75-1	25-50
Iron oxide	1317-61-9	25-50
Phenoxy resin	PMN P-95-461	10-25
Carbon black	1333-86-4	1-5
Amorphous silica	68611-44-9	<1

3. Hazards identification

In a toner dust cloud the formation of an explosive dust-air mixture is possible.
Toner dust may cause discomfort to the eyes and respiratory tract, in the same manner as inert nuisance dust.
To our knowledge, with due observance of the recommended exposure limit and of normal hygiene this product presents no health hazard in normal use.

4. First aid measures

Eyes contact Rinse with plenty of water.
Skin contact Wash with cold water and soap.
Inhalation Clean nose, mouth, throat. Cough up. Fresh air.
Ingestion Rinse mouth with water. If large quantity swallowed seek medical advice.

For any medical advice take along this material safety data sheet.

5. Fire fighting measures

Extinguishing media Dry chemical, carbon dioxide, water spray (fog), foam
Special fire fighting precautions N.A.
Hazardous products of decomposition N.A.

6. Accidental release measures

Spills can be cleaned with a vacuum cleaner or a damp rag. Do not use warm water, because this makes the toner soft and sticky.

7. Handling and storage

Keep bottle tightly closed to prevent dust formation. Handle carefully. Avoid breathing dust. No special technical measures for storage.

8. Exposure controls / personal protection

No special technical measures. No personal protective equipment needed.
Industrial hygiene: after skin contact wash with cold water and soap.
Threshold Limit Value for
nuisance dust: 10 mg/m³
carbon black: 3.5 mg/m³
amorphous silica: 10 mg/m³

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9. Physical and chemical properties

Explosion limits (dust explosion)	LEL 60 g/m ³ . UEL U (= unknown)	Flash point (°C)	N.A. (=Not Applicable)
Appearance and odor	Black powder, faint odor	Ignition temperature (°C)	Approx. 500
Boiling point (°C)	N.A.	Bulk density (kg/m ³)	Approx. 1000
Vapor density (air = 1)	N.A.	Softening point (°C)	Approx. 50
Solubility in water	Insoluble	Evaporation rate (butyl acetate = 1)	N.A.
Vapor pressure	N.A.	% Volatile	0
Other characteristics	N.A.	pH (solution)	N.A.

10. Stability and reactivity

Thermal decomposition	Above approx. 450 °C
Hazardous decomposition products	None at intended use
Hazardous reaction	None
Combustion products	Carbon dioxide, carbon monoxide, water

11. Toxicological information

Inhalation	* At high concentration in air the powder may cause discomfort of upper respiratory system.
Skin	* No adverse health effects are expected.
Eyes	* Dust may cause discomfort in the same manner as nuisance dust.
Ingestion	* Considered relatively harmless.
Mutagenicity	No mutagenicity detected in Ames test.

* These statements are based on toxicological literature on the ingredients of this product and test results of similar product.

12. Ecological information

This product is not biodegradable.
The ingredients are not classified as ecologically hazardous. No adverse environmental effects are expected.

13. Disposal considerations

Material is not classified as hazardous waste under the present EPA regulations.
Pack waste dustproof to prevent dusting. With due observance of local laws and regulations, dispose of by burial in a sanitary landfill or incineration. Do not throw in open fire, in order to prevent the risk of a dust explosion.

14. Transport information

This product is not classified as a dangerous substance according to the international transport regulations.

15. Regulatory information

Applicable regulation: 29 CFR Part 1910.1200 Hazard Communication.
Hazard and safety information on the label: Handle carefully; avoid breathing dust.

16. Other information

Carbon Black: in 1996 the International Agency for Research on Cancer (IARC) re-evaluated carbon black as a Group 2B carcinogen (possible human carcinogen), based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black. The effects were observed only in animals exposed to high concentrations of 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. Epidemiology studies of workers in the carbon black producing industries of North America and Western Europe do not demonstrate an association between carbon black and cancer, even in high exposure occupational settings. In addition, in its re-evaluation of carbon black, IARC concluded that "there is inadequate evidence in humans for the carcinogenicity of carbon black". Chronic overexposure to many dusts, including carbon black dust, may result in respiratory tract irritation and slight changes in lung function.

Room ventilation: see operator manual or safety data sheet for the copier.

Use: ink powder for copiers.

Revision of E-182-b-US dated September 1996.

Modifications: Composition/information on ingredients and statement of mutagenicity changed. Information about Carbon Black added.

This safety data sheet has been compiled to the best of our knowledge as a compact guide to safe handling of this product. We reserve the right to revise safety data sheets as new information becomes available. It is the user's responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary and to contact the company to make sure that this sheet is the latest one issued. If and insofar as limitation of liability is permitted under the applicable laws, we do not accept liability for any inaccuracy that may occur in this information.