MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Ricoh FT Black Toner Type 8800
Product Number: 887599
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Corporation
5 Dedrick Place
West Caldwell, NJ USA 07006
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:
FT8680, FT8780, FT8880, FT8980.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	50.0 - 80.0 %	(confidential)
STYRENE ACRYLIC POLYMER	10.0 - 40.0 %	26655-10-7
CARBON BLACK	< 15.0 %	1333-86-4
WAX	< 5.0 %	8015-86-9
DYE	< 5.0 %	31714-55-3

EXPOSURE GUIDELINES:

Carbon Black

OSHA TWA: 3.5 mg/m^3
ACGIH TWA: 3.5 mg/m^3

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:
Inhalation, ingestion.

CARCINOGENICITY:
Carbon Black was reclassified as a Group 2B by IARC in 1996 based on the result of only the inhalation study in rats. However there was not observed the incidence of tumors on the test results on dermal or oral studies. Also 2-years inhalation study using a typical toner containing carbon black showed no association between toner exposure and animal tumors.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:
Not applicable.

CHRONIC EFFECTS:
Prolonged inhalation of excessive dust may cause lung damage. It is attributed to 'lung overloading', a generic response to excessive amounts of any dust retained in the lung for a prolonged interval. Use of this product, as intended, does not result in inhalation of excessive dust.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
Try to remove with eye drops or flush with water. If unsuccessful, get medical attention.

SKIN CONTACT FIRST AID:
Wash thoroughly with soap and water.

INHALATION FIRST AID:
Gargle with water, move to place in fresh air. If unsuccessful, get medical attention.

INGESTION FIRST AID:
Dilute stomach contents with several glasses of water. If unsuccessful, get medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
COC Flash Point: N/A
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR
LEL: N/A
UEL: N/A

BURNING RATE:
Not available.

EXTINGUISHING MEDIA:
Foam, water spray (mist), dry chemical or carbon dioxide may be suitable.

FIRE FIGHTING INSTRUCTIONS:
No special fire protecting method is required.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:
If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction). Remove residue with soap and water.

MISCELLANEOUS:

Personal precautions: Minimize inhalation of dust.

Environment precautions: Keep product out of sewers and watercourses.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:
Do not handle in areas where wind blows. Flying powder may enter eyes. Minimize breathing dust.

STORAGE REQUIREMENTS:
Avoid direct sunlight. Do not keep this over 35C. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:
Local exhaust equipment is needed.

RESPIRATORY PROTECTION:
None required under normal conditions of use.

PROTECTIVE CLOTHING / EQUIPMENT:
None required under normal conditions of use.

Eye protection: None required under normal conditions of use.

Protective gloves: None required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM	Powder
COLOR	Black
ODOR	slight plastic odor
BOILING POINT	Not applicable C
VAPOR PRESSURE	Not applicable psia
VAPOR DENSITY	Not applicable (Air = 1)
SOLUBILITY IN WATER	Insoluble
MELTING/FREEZING POINT ...	Not applicable C
PH	Not applicable
% VOLATILES	- %

10. STABILITY AND REACTIVITY

STABILITY:
Stable.

POLYMERIZATION:
None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:
Styrene.

11. TOXICOLOGICAL INFORMATION

SKIN EFFECTS:
Non-irritant.

ACUTE ORAL EFFECTS:
5000mg/kg.

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 the 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, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumor development in rats.

MUTAGENICITY:
Negative.

TERATOGENICITY:
Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
Acute toxicity for fish >500mg/kg/96hr.

ENVIRONMENTAL DEGRADATION:
Not known.

MISCELLANEOUS:
Not known in bioaccumulation.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:
Used toner should be disposed of in an environmentally appropriate manner and in accordance with governmental regulations. Do not incinerate.

14. TRANSPORT INFORMATION

PRODUCT LABEL ...: Ricoh FT Black Toner Type 8800

MISCELLANEOUS:
Specific precautionary transport measures: Avoid direct sunlight. Do not keep this over 35C.

15. REGULATORY INFORMATION

No information available.

16. OTHER INFORMATION

HMIS Rating - Health: 1
Flammability: 1
Reactivity: 0

PREPARED BY .....: Ricoh Corporation
APPROVED BY .....: David Huelbig
TITLE .....: Safety Engineer
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