



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Ricoh Toner Cartridge Type 1180 Black
Product Number: 411880
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

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

GENERAL USE:

AC204.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	> 80.0 %	Confidential
CARBON BLACK	< 10.0 %	1333-86-4
WAX	< 5.0 %	9010-79-1
DYE	< 2.0 %	Confidential
IRON OXIDE	< 2.0 %	1309-38-2

EXPOSURE GUIDELINES:

Carbon Black

OSHA PEL: 3.5 mg/m³
ACGIH TWA: 3.5 mg/m³

Dye

ACGIH TWA: 0.5 mg/m³

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Odorless black fine powder.

Nonflammable, but when suspended in air, is combustible as with most organic powders.

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

ACUTE SKIN EFFECTS:

Non-irritant.

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:

Immediately wash eyes with plenty of 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:

CO₂, dry chemicals, foam or water.

FIRE FIGHTING INSTRUCTIONS:

Generally by sprinkling or extinguisher.

FIRE FIGHTING EQUIPMENT:

Wear full bunker gear including a positive pressure self-contained breathing apparatus in case of burning in large quantities.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction).

Minimize release of particulates. Wear personal protective equipment.

After by lightly spraying with water to prevent development of dust, spills should be swept up or wiped up. Then residuals can be removed with soap and water. Preferred to use the material in place, covering up the floor and surrounding matters with suitable sheets such as paper, in a case of being not fit to scrub the floor with water. These used sheets should be wrapped up in spills and transfer into a suitable container for disposal.

Garment may be washed or dry cleaned, after removal of loose toner.

MISCELLANEOUS:

Minimize inhalation of dust. 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.

Inhalation and contact with skin or eyes should be avoided.

STORAGE REQUIREMENTS:

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

Store in a cool, well ventilated place away from flames and spark-producing equipment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None needed under normal use condition.

RESPIRATORY PROTECTION:

None required under normal conditions of use.

PROTECTIVE CLOTHING / EQUIPMENT:

None required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Fine powder
COLOR:	Black
ODOR:	None
BOILING POINT:	Not applicable C
VAPOR PRESSURE:	Not applicable psia
VAPOR DENSITY:	Not applicable (Air = 1)
SOLUBILITY IN WATER:	Negligible
MELTING/FREEZING POINT:	Not applicable C
PH:	Not applicable
% VOLATILES:	Not applicable %
VISCOSITY:	Not applicable
EVAPORATION RATE:	Not applicable
DENSITY (G/CM3):	approx. 1.1

10. STABILITY AND REACTIVITY

POLYMERIZATION:

Will not occur.

CHEMICAL INCOMPATIBILITIES:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

Rat (LD50): >5000mg/kg.

CARCINOGENICITY:

In 1996, the 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 rat 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, a 2-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

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 Toner Cartridge Type 1180 Black

MISCELLANEOUS:

This is not a hazardous product.

Avoid direct sunlight. Do not keep this over 35 degrees centigrade.

15. REGULATORY INFORMATION

MISCELLANEOUS INFORMATION:

TSCA: All chemical substances in this product comply with all applicable rules or orders under TSCA.

16. OTHER INFORMATION

HMIS Rating:

Health - 1
Flammability - 1
Reactivity - 0

APPROVED BY: David Huelbig
TITLE: Safety Engineer
APPROVAL DATE: August 31, 2004
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