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MATERIAL SAFETY DATA SHEET

430222

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Toner Type 1135

Product Number: 430222 Chemical Name: mixture CAS Number: 0-00-0

Company Identification

Ricoh Corporation
19 Chapin Road
Building C
Pine Brook, NJ 07058 USA
(973)882-2000 or (973)882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

Fax 2000L, 2900L, 2000G, 1900L, SFX2000 TE/TI.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Amount	CAS Number
POLYESTER RESIN (CAS# CONFIDENTIAL)	58.0 %	0-00-0
MAGNETITE	20.0 %	1309-38-2
STYRENE ACRYLIC POLYMER	15.0 %	25036-19-5
CARBON BLACK	3.0 %	1333-86-4
WAX	3.0 %	8015-86-9
SILICA	1.0 %	7631-86-9

MISCELLANEOUS:

Used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CAS number 1309-38-2, 1333-86-4, 8015-86-9, 7631-86-9 are listed on the US TSCA Master Inventory.

CAS number 7631-86-9: OSHA Carcinogen? No IARC Rating: 3 NTP Rating: None.

CAS number 7631-86-9 chemical appears on the Florida Toxic Substances List.

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(section 2 continued)

CAS number 7631-86-9 is found on the following hazardous substance lists-Massachusetts, Pennsylvania, Minnesota.

Carbon Black is on the New Jersey Hazardous Substance List because it is regulated by OSHA and cited by NIOSH, ACGIH and IARC.

Based on an IARC conclusion that there is 'sufficient evidence in experimental animals for the carcinogenicity of carbon black' and inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that 'carbon black is possibly carcinogenic to humans' (Group 2B).

Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety & Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH levels greater than 0.1% be considered suspect carcinogens.

EXPOSURE GUIDELINES:

No Information Available.

OTHER EXPOSURE GUIDELINES:

Carbon Black OSHA: The legal airborne permissible exposure limit (PEL) is 3.5 mg/m3 averaged over an 8-hour workshift.

Carbon Black NIOSH: Recommends that exposure to occupational carcinogens be limited to the lowest feasible concentration.

Carbon Black ACGIH: The recommended airborne exposure limit is 3.5 mg/m3 averaged over an 8-hour workshift.

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Eyes, inhalation, ingestion.

ACUTE EYE EFFECTS:

May cause temporary eye discomfort.

ACUTE SKIN EFFECTS:

Non-irritant.

ACUTE INHALATION EFFECTS:

Gasping.



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(section 3 continued)

ACUTE INGESTION EFFECTS:

The acute lethal oral dose to rats of JX Toner was demonstrated to be greater than 5000mg/kg bodyweight.

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 preparation containing carbon black showed no association between carbon black and lung tumors.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Will not occur.

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 or flush with water. If unsuccessful, get medical attention.

SKIN CONTACT FIRST AID:

Wash thoroughly with soap and water.

INHALATION FIRST AID:

Remove from exposure.

INGESTION FIRST AID:

Dilute stomach contents with several glasses of water.

MISCELLANEOUS:

AMES test result: Negative.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

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(section 5 continued)

FLAMMABLE LIMITS IN AIR

LEL: N/A UEL: N/A

EXTINGUISHING MEDIA:

Foam, water spray (fog), dry chemicals or carbon dioxide may be suitable.

UNUSUAL FIRE OR EXPLOSION HAZARDS:

Airborne dispersal of most finely divided organic powders such as toner may form an explosive mixture. Do not incinerate loose or spilled toner.

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.

7. HANDLING AND STORAGE

STORAGE REQUIREMENTS:

Store in a cool, dry place. Keep out of reach of children.

MISCELLANEOUS:

Do not handle in areas where wind blows. Flying powder may enter eyes. Minimize inhalation of dust. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of work periods.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

Local exhaust ventilation: None required under normal conditions of use.

Special ventilation requirements: None required under normal conditions of use.

Mechanical (general): Adequate ventilation.

Other: None.

RESPIRATORY PROTECTION:

None required under normal conditions of use.

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(section 8 continued)

PROTECTIVE CLOTHING / EQUIPMENT:

Protective gloves: None required under normal conditions of use.

Eye protection: None required under normal conditions of use.

Other protective clothing or equipment: None required under normal conditions of use.

MISCELLANEOUS:

Work and hygenic practices: Minimize breathing dust. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of work periods.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM Powder COLOR Black

ODOR slight sour smell
BOILING POINT: Not applicable C
VAPOR PRESSURE: No data psia
VAPOR DENSITY: No data (Air = 1)

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY Not applicable (Water = 1)

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide and other decomposition products in the case of incomplete combustion.



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11. TOXICOLOGICAL INFORMATION

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 exposure 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 inhalation study using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumor development in rats.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Carbon Black is not classified as a toxic or dangerous waste under Council Directive 78/319/EEC and its amendments.

Used toner should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Do not incinerate loose or spilled toner. Disposal regulations vary from locality to locality, therefore, consult your local office of the EPA to determine proper method of disposal.

14. TRANSPORT INFORMATION

PRODUCT LABEL...: Toner Type 1135

15. REGULATORY INFORMATION

EEC Symbols and Indications of Danger:

None

WHMIS Hazard Symbols:

None



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(section 15 continued)

Canadian Disclosure List

Silica (7631-86-9)

MISCELLANEOUS INFORMATION:

Carbon Black, CAS number 1333-86-4, is included in the following inventories: U.S. Toxic Substance Control Act (TSCA), European Inventory of Existing Chemical Substances (EINECS), Canadian Domestic Substances List (DSL), Australian Inventory of Chemical Substances (AICS), Japanese Ministry of International Trade and Industry (MITI) List of Existing Chemical Substances, Korean Toxic Chemicals Control Law (TCCL).

16. OTHER INFORMATION

Prepared By.....: Ricoh Corporation Approved By.....: David Huelbig Title.....: Safety Engineer Approval Date....: July 12, 2000

Supercedes Date...: New MSDS Number....: 0951

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END OF MSDS

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