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Ricoch Corporation  
MATERIAL SAFETY DATA SHEET

12/04/96

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Section I. General Information  
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## MSDS Identifier Code

Supplier ID: Ricoh Product Code: 889264

Identity: Ricoh FT Toner Type 310 - Black

## Manufacturer's Name and Address:

Ricoch Corporation  
5 Dedrick Place  
West Caldwell, NJ 07006

Emergency Telephone Number: (800) 336-6737

Telephone Number for Information: (201) 882-2000, (800) 336-6737

Synonyms &amp; Common Names: Ricoh FT Toner Type 310 - Black

Uses: FT3313/3113/3413

Chemical Formula: Mixture

## Registry numbers

CAS Number: 0-00-0

RTECS Number: N/App

Date Prepared: 10/28/96 Filed/Prepared By: RICOH CQA/EA Division

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Section II. Hazardous Ingredients/Identity Information  
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## Composition

| Component                           | %     | CAS<br>#    | OSHA<br>Pel | ACGIH<br>TLV |
|-------------------------------------|-------|-------------|-------------|--------------|
| Polyester Resin (CAS# Confidential) | <30.0 | 0-00-0      | N/App       | N/App        |
| Styrene Acrylic Polymer             | <65.0 | 25036-19-5  | N/App       | N/App        |
| *Polyolefine                        | <05.0 | 0 9003-07-0 | N/App       | N/App        |
| *Carbon Black                       | <15.0 | 1333-86-4   | 3.5mg/m3    | 3.5mg/m3     |

## \*Non-hazardous

Polyolefine is listed on the IARC Mono-graph.

Carbon Black was reclassified by the IARC as Group 2B substance (see section VI).

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All components of this mixture comply with the United States TSCA.

Exposure Limits (TLV/PEL)

OSHA: See data above  
NIOSH: Not applicable  
ACGIH: See data above  
State: Not applicable  
Other: None

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### Section III. Physical/Chemical Characteristics

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Boiling Point: Not applicable      Specific Gravity: 1.2g/cm<sup>3</sup>  
Vapor Pressure: Not applicable      % Volatile by Volume: Not applicable  
Melting Point: No Data      Vapor Density (Air=1): Not applicable  
Evaporation Rate (n-BuAc=1): Not applicable

Solubility in Water: Less than 0.1%

Appearance and Odor: Black powder with slight plastic odor

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### Section IV. Fire and Explosion Hazard Data

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Flash Point and Method: Not applicable

Explosive Limits: LEL N/App UEL N/App  
Comments: Not applicable

Extinguishing Media: CO<sub>2</sub>, dry chemicals, foam or water

Special Fire-Fighting Procedures: No special fire-fighting procedure is necessary.

Unusual Fire and 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.

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### Section V. Reactivity Data

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Stability: Stable

Conditions to Avoid: Not applicable

Incompatibility (Materials to Avoid): Not applicable

Hazardous Decomposition or Byproducts: Carbon monoxide and other decomposition products in the case of incomplete combustion.

Hazardous Polymerization: Will not Occur  
Conditions to Avoid: Not applicable

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Section VI. Health and Hazard Data  
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Routes of Entry: Eyes, inhalation, ingestion

Health Hazards of Short-Term exposure (Acute)

Eyes: May cause temporary eye discomfort.

Skin: No skin irritation

Inhalation: Gasping

Ingestion: Oral Rat LD50: Greater than 5g/kg bodyweight

Health Hazards of Long-Term exposure (Chronic): Prolonged inhalation of excessive dust may cause lung damage that is 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.

Carcinogenicity: In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen) based on the result of inhalation studies on rats. This was determined on the development of lung tumors in rats receiving chronic (large amounts over a long period of time) inhalation exposures of free carbon black at levels that induce particle overload of the lungs. There were no observed incidence of tumors in either dermal or oral studies.

A two year bioassay using typical toner preparations containing carbon black showed no association between toner exposure (inhalation or otherwise) and tumor development in rats. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors.

NTP? No IARC Monographs? Yes OSHA Regulated? No

Signs and Symptoms of Exposure: None under normal conditions of use

Medical Conditions Generally Aggravated by Exposure: Will not occur.

## Emergency and First Aid Procedures

## First Aid

Eyes: Try to remove with eye drops or flush with water. If unsuccessful, get medical attention.

Skin: Wash thoroughly with soap and water.

Inhalation: Remove from exposure.

Ingestion: Dilute stomach contents with several glasses of water.

Additional Information: Ames test result: Negative

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Section VII. Precautions for Safe Handling and Use

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Steps to be Taken in Case Material is Released or Spilled: If spilled, sweep up using an approved toner vacuum cleaner with a .5 micron filter or smaller such as the Atrix AAA Toner Vacuum (Ricoh EDP Code 342MIU). Use of a vacuum cleaner not rated for toner particulate could be a potential fire hazard and/or result in personal injury.  
Remove residue with soap and water.

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

Precautions to Be Taken in Handling and Storing: Store in a cool, dry place. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of work periods. Keep out of reach of children.

Other Precautions: Do not handle in areas where wind blows. Flying powder may enter eyes. Minimize inhalation of dust.

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Section VIII. Control Measures

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Respiratory Protection: None required under normal conditions of use.

Ventilation

Local Exhaust: None required under normal conditions of use.

Special: None

Mechanical (general): Adequate ventilation

Other: None

Protective Gloves: None required under normal conditions of use.

Eye Protection: None required under normal conditions of use.

Other Protective Clothing or Equipment: None

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