

Ricoh Corporation
 MATERIAL SAFETY DATA SHEET

04/04/96

 Section I. General Information

MSDS Identifier Code

Supplier ID: Ricoh Product Code: 887640

Identity: Ricoh Toner Type 620

Manufacturer's Name and Address:

Ricoh 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 & Common Names: Ricoh Toner Type 620

Uses: FT6645, FT6655, FT6665, FT7650, FT7660, FT7670

Chemical Formula: Mixture

Registry numbers

CAS Number: 0-00-0
 RTECS Number: N/App

Date Prepared: 06/15/94 Filed/Prepared By: Ricoh CQA/EA Divison

 Section II. Hazardous Ingredients/Identity Information

Composition

Component	%	CAS #	OSHA Pel	ACGIH TLV
Polyester Resin (CAS# Confidential)	58.00	0-00-0	N/App	N/App
Styrene Acrylic Polymer	26.00	25767-47-9	N/App	N/App
*Carbon Black	12.00	1333-86-4	3.5mg/m3	3.5mg/m3
Carnuba Wax	04.00	8015-86-9	N/App	N/App

*Carbon Black is listed on the IARC Mono-graph and the Massachusetts Substance List. The IARC has evaluated the evidence for the carcinogenicity of Carbon Black as inadequate to determine a carcinogenic risk for humans.

 THIS PRODUCT IS NON-HAZARDOUS

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

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Exposure Limits (TLV/PEL)

OSHA: See data above
NIOSH: Not applicable
ACGIH: See data above
State: Not applicable
Other: Not applicable

Section III. Physical/Chemical Characteristics

Boiling Point: Not applicable Specific Gravity: 1.2
Vapor Pressure: Not applicable % Volatile by Volume: Not applicable
Melting Point: No data available Vapor Density (Air=1): Not applicable
Evaporation Rate (n-BuAc=1): Not applicable

Solubility in Water: Negligible: less than 0.1%

Appearance and Odor: Black powder with slight plastic odor

Section IV. Fire and Explosion Hazard Data

Flash Point and Method: Not applicable

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

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

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.

Section V. Reactivity Data

Stability: Stable

Conditions to Avoid: Not applicable

Incompatibility (Materials to Avoid): None

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

Section VI. Health and Hazard Data

Routes of Entry: Eyes, ingestion, inhalation

Health Hazards of Short-Term exposure (Acute)

Eyes: May cause temporary eye discomfort.

Skin: (rabbit): non-irritant

Inhalation: Gasping

Ingestion: Acute oral toxicity (rat)LD50: greater than 5g/kg bodyweight

Health Hazards of Long-Term exposure (Chronic): A Xerox sponsored chronic inhalation study in rats using a special test toner revealed there were no lung changes at all in the lowest exposure level (1mg/m³), the most relevant level to potential human exposures. A very slight degree of fibrosis was noted in 25% of the animals at the middle exposure level (4mg/m³), while a slight degree of fibrosis was observed at the highest exposure level (16mg/m³) in all animals. These findings are attributed to "Lung Overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. The special test toner was ten times more respirable than commercially available toner to comply with EPA testing protocol and would not function properly in xerographic equipment.

Carcinogenicity: See Section II

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

Section VII. Precautions for Safe Handling and Use

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.

Section VIII. Control Measures

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 required under normal conditions of use.

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