RICOH CORPORATION MATERIAL SAFETY DATA SHEET

04/09/92

Section I. General Information

GDS Identifier Code

Supplier ID: Ricoh Product Code: 7100-06

dentity: 5020/7020 Toner

anufacturer's Name and Address:

Ricoh Corporation
5 Dedrick Place

West Caldwell, NJ 07006

Distributor's Name and Address:

Savin Corporation P.O. Box 10270 Stamford, CT 06904

mergency Telephone Number: (800) 336-6737

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

!ynonyms & Common Names: Savin Product Code - 4210, 5020/7020 Toner

Jses: Savin 5020/7020, Savin 7025

Chemical Formula: Mixture - Carbon black, Styrene Acrylic Resin, Dye

Registry numbers

"AS Number: 0-00-0 TECS Number: N/App

Date Prepared: 04/01/92 Filed/Prepared By: Kristina Sage

Section II. Hazardous Ingredients/Identity Information

Composition

Component	8	.CAS #	OSHA Pel	ACGIH TLV
Styrene Acrylic Polymer Styrene Acrylic Polymer *Carbon Black Dye Dye Dye	13.00 11.00 <2.00 <2.00	26655-10-7 25213-39-2 1333-86-4 84179-66-8 109125-50-0 109125-51-1		N/App N/App 3.5mg/m3 N/App N/App N/App
*Carbon Black is listed on the IARC Monograph 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 home. This PRODUCT IS NON-HAZARDOUS		 		,

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Txp ure Limits (TLV/PEL)

USHA: See data above NIOSH: Not applicable ACGIH: See data above State: Not applicable

Other: None

Section III. Physical/Chemical Characteristics

Boiling Point: Not applicable Specific Gravity: 0.34

Vapor Pressure: Not applicable % Volatile by Volume: Not applicable Melting Point: 80C or higher 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

Ex sive Limits: LEL N/App UEL N/App

Comments: Not applicable

Extinguishing Media: CO2, dry chemicals, foam or water

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

necessary.

Unusual Fire and Explosion Hazards: Will not occur.

Section V. Reactivity Data

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 combustion.

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

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Section VI. Health and Hazard Data

outes of Entry: Eyes, ingestion, inhalation

!ealth Hazards of Short-Term exposure (Acute)

Eyes: May cause temporary eye discomfort

Skin: May cause slight irritation on prolonged and repeated contact with

the skin. Mildly irritating (primary irritation index 0.1).

Inhalation: Gasping

Ingestion: Greater than 5g/kg bodyweight, practically non-toxic

Realth Hazards of Long-Term exposure (Chronic): In a Xerox sponsored chronic inhalation study in rats using a special test toner, there were no lung changes at all in the lowest exposure level (1mg/m3), the most relevant level to potential huamn 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 excresive amounts of any dust retained in the lungs for a prolonged interval. The pecial 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: This product contains carbon black. The IARC has evaluated the evidence for the carcinogenicity of carbon black as inadequate to determine a carcinogenic risk for humans. Carbon black is not listed on the latest NTP Annual Report or OSHA Listing as a carcinogen.

NTP? No IARC Monographs? Yes OSHA Regulated? No

Signs and Symptoms of Exposure: Not applicable

Medical Conditions Generally Aggravated by Exposure: Not applicable

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

teps 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 such as the Atrix AAA Toner Vacuum (Ricoh EDP Code 342MIU). Use of a vacuum cleaner not sated 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. 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: Cleanse skin thoroughly after contact, before breaks and meals, and at the end of work periods. Keep out of reach of children.

Other Precautions: None

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: Cleanse skin thoroughly after contact, before breaks and meals and at the end of work periods.