



# MATERIAL SAFETY DATA SHEET

RICOH FAX TONER CASSETTE TYPE 1435 BLACK

Date Prepared : 9/3/2001

MSDS Number : 430244

Product Number: 430244

## SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Product Identification

**Product Name :** RICOH FAX TONER CASSETTE TYPE 1435 BLACK  
**Product Number :** 430244  
**Chemical Name :** Mixture  
**CAS Number :** 0-00-0

### Company Identification

**Company Name :** RICOH ASIA INDUSTRY (SHENZHEN) LTD.  
**Address :** Color TV Industrial Zone, North Huanggang Road, Shenzhen, P.R.China

**Emergency telephone Number :** +86-755-3223296  
**Telephone Number for Information :** +86-755-3223296

## SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS #	Contents %	ACGIH (TLV)			OSHA (PEL)	
			TWA	STEL	C	TWA	C
Polyester Resin	(confidential)	58	N/A	N/A	N/A	N/A	N/A
Magnetite	1309-38-2	20	10mg/m3	N/A	N/A	N/A	N/A
Styrene Acrylic Polymer	25036-19-5	15	N/A	N/A	N/A	N/A	N/A
Carbon Black	1333-86-4	3	3.5mg/m3	N/A	N/A	3.5mg/m3	N/A
Wax	8015-86-9	3	N/A	N/A	N/A	N/A	N/A
Silica	7631-86-9	1	N/A	N/A	N/A	N/A	N/A

## SECTION 3 HAZARDS IDENTIFICATION

### Emergency Overview

HMIS Health = 1 Flammability = 1 Reactivity = 0 PPE : See Section 8

### Potential Health Effects

**Primary Entry Routes**  
**Inhalation :** No  
**Skin :** No  
**Ingestion :** Yes

**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 result 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 Conditions Aggravated by Exposure :

**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.

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**SECTION 4 FIRST AID MEASURES**

**Inhalation :** Gargle with water, move to place in fresh air. If unsuccessful, get medical attention.  
**Skin contact :** Wash thoroughly with soap and water.  
**Eye Contact :** Try to remove with eye drops or flush with water. If unsuccessful, get medical attention.  
**Ingestion :** Dilute stomach contents with several glasses of water. If unsuccessful, get medical attention.

**SECTION 5 FIRE-FIGHTING MEASURES**

**Flash Point :** Not applicable  
**Burning Rate (mm/sec) :** Not available  
**Autoignition Temperature (C) :** Not available  
**Flammable Limits (%) LEL :** Not available  
**UEL :** Not available

**Extinguishing Media :** CO2, dry chemicals, foam or water.  
**Fire-Fighting Instructions :** No special fire protecting method is required.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal Precautions :** Minimize inhalation of dust.  
**Environment Precautions :** Keep product out of sewers and watercourses.  
**Method for Cleaning up :** If spilled, sweep up or pick up by vacuum cleaner(rated for toner extraction).  
Remove residue with soap and water.

**SECTION 7 HANDLING AND STORAGE**

**Handling (technical measures, precautions, safe handling material)**  
Do not handle in areas where wind blows.  
Flying powder may enter eyes.  
Minimize breathing dust.  
**Storage (technical measures, storage condition, packaging material)**  
Avoid direct sunlight.  
Do not keep this over 35 C (95 F)  
Keep out of reach children.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ventilation :** Local exhaust equipment is needed.  
**Respiratory Protections (Specify type) :** None required under normal conditions of use.  
**Eye Protection :** None required under normal conditions of use.  
**Protective Gloves :** None required under normal conditions of use.  
**Protective Clothing or Equipment :** None required under normal conditions of use.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Form :** Powder  
**Color :** Black  
**Odor :** Slightly sour smell

**pH :** Not applicable  
**Boiling Point (C) :** Not applicable  
**Vapor Pressure(Pa) :** Not applicable  
**Vapor density(Air=1) :** Not applicable  
**Density (g/cm3) :** 1.45  
**Formula Weight :** Not applicable  
**Melting Point (C) :** Not applicable  
**Viscosity (Pa) :** Not applicable  
**Volatile (%) :** -  
**Evaporation Rate(n-BuAc=1) :** Not applicable  
**Water Solubility (g/L) :** Insoluble  
**Other Solvent name :** -  
**Other Solvent Solubility(g/L) :** -

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**SECTION 10 STABILITY AND REACTIVITY**

**Stability :** Stable  
**Condition to Avoid :** Not applicable in normal use.  
**Material to Avoid :** None under normal use condition.  
**Hazardous Polymerization :** None  
**Hazardous Decomposition or Byproducts :** Carbon dioxide; Water

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

**Acute Oral Toxicity :** >= 5000 mg/kg (The acute lethal oral dose to rats of this toner was demonstrated to be greater than 5000mg/kg bodyweight.)  
**Acute Dermal Toxicity :** Not applicable  
**Acute Inhalation Toxicity :** Not applicable

**Sensitization**

**Acute Skin Irritation :** Non-irritant (PII=0.0)  
**Acute Eye Irritation :** Not applied  
**Acute Allergenic Effects :** Non-skinsensitive (Did not produce evidence of skin sensitization.)

**Special Effects**

**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 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, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumor development in rats.

**Mutagenicity :** Negative (shows no evidence of mutagenic activity)  
**Effects on the reproductive system :** Not available.  
**Teratogenic :** Not available.

**SECTION 12 ECOLOGICAL INFORMATION**

**Persistence/Degradability :** Not known  
**Bioaccumulation :** Not available.  
**Ecotoxicity**  
**Acute toxicity for Fish :** Not available.  
**Acute toxicity for daphnia :** Not available.  
**Algae inhibition test :** Not available.

**SECTION 13 DISPOSAL CONSIDERATION**

**Recommended Methods for safe Environmentally Preferred Disposal**

Used toner should be disposed of in an environmentally appropriate manner and in accordance with governmental regulations. Do not incinerate.

**SECTION 14 TRANSPORT INFORMATION**

**International regulations**

**RID/ADR :** Not applicable  
**DOT 49 CFR :** Not applicable  
**ADNR :** Not applicable  
**IMDG Code :** Not applicable  
**ICAO-TI/ATA-DGR :** Not applicable  
**The UN Classification Number :** Not applicable

**Specific Precautionary Transport Measures:** Avoid direct sunlight. Do not keep this over 35 C (95 F)  
**Specific Materials to Avoid :** None in normal use.

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**SECTION 15 REGULATION INFORMATION**

**Regulation :** Not known

**SECTION 16 OTHER INFORMATION**

Explanation of Hazardous Materials Identification System (HMIS) & National Fire Protection Association (NFPA) hazard rating systems :

Both the HMIS and NFPA systems use number from "0" to "4" to show the degree of hazard in an uncontrolled situation:

0=Minimum hazard 1=Slight hazard 2=Moderate hazard 3=Serious hazard 4=Severe hazard.

Colors may also be used in both systems :

Blue= Health hazard Red= Fire hazard Yellow= Reactivity hazard White= Indicate a special hazard.

HMIS will specify any Personal Protective Equipment required (PPE).

NFPA will specify OX(oxidizer), Acid(acid), ALK(alkali), COR(corrosive), W(use no water), xx(radioactive).

**References:**

- 1) IARC(1996) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.65, Printing Process and Printing Inks, Carbon Black and some Nitro Compounds", Lyon, pp149-261
- 2) H.Muhle, B.Bellman, O.Creutzenberg, C.Dasenbrock, H.Emst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein(1991) "Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rat" Fundamental and Applied Toxicology 17,pp280-299