SHARP

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Date Revised: July 1, 1996
Date Issued: July 20, 1995

MATERIAL SAFETY DATA SHEET (1/2)

MSDS No. F-0161

Section 1. Product Identification

Product:_SF-730T1(Black Toner)*

Section 2. Supplier's Name and Address

Sharp Corporation

22-22 Nagaike-cho, Abeno-ku, Osaka, Japan

Local suppliers are listed below. Please contact the nearest supplier for additional information.

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(Country)	(Name and Telephone Number)					
U.S.A.	Sharp Electronics Corporation					
	Telephone number for information: 1-800-237-4277					
	Emergency telephone number : 1-800-255-3924					
Canada Sharp Electronics of Canada Ltd.						
	Telephone number for information: 905-890-2100					
	Emergency telephone number : 1-800-255-3924					
United	Sharp Electronics (U.K.) Ltd.					
Kingdom	Telephone number for information: 01923-474013					

Section 3. Ingredients

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Ingredients	CAS No.	Proportion	OSHA PEL	ACGIH TLV	Other Limits
Carbon black	1333-86-4	< 6%	3.5mg/m ³	3.5mg/m ³	None
Styrene –acrylate copolymer	25767-47-9	> 92%	Not listed	Not listed	None
Organic ammonium salt	102561-46-6	< 2%	Not listed	Not listed	None

Section 4. Hazardous Identification (Emergency Overview)

Toner is a fine, black powder possessing no immediate hazard. There are no anticipated carcinogenic effects from exposure based on animal tests performed using toner. When used as intended according to instructions, studies do not indicate any symptoms of fibrosis will occur.

Section 5. Health Hazard Data

Route(s) of Entry: Inhalation?
Yes No Possible but very unusual.

Health Hazards : Acute Toxicity: LD50 > 5,000mg/kg. LC50 > 6.42 mg/L'4Hrs

Mutagenicity (Ames Test): Negative. (S.typhimurium, Escherichia coli)

(Note: data is from testing of similar materials.)

Carcinogenicity: In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification 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 did not show any association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Chronic Effect: In a study in rats of chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group, but no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures.

Signs and Symptoms of Exposure

Minimal irritation to respiratory tract may occur as with exposure to any non-toxic dust.

Medical Conditions Generally Aggravated by Exposure : None

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MATERIAL SAFETY DATA SHEET (2/2)

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Section 5. Health Hazard Data (Continued)

Emergency and First Aid Procedures :

Inhalation --- Remove to fresh air. If effects occur, consult medical personnel.

Eve --- In case of contact, immediately flush eyes with water for 15 minutes.

Section 6. Physical Chemical Characteristics

BoilingMelting Point

: Not applicable

Specific Gravity

1.1

Vapor Pressure

Not applicableNot applicable

Solubility in Water

Negligible Not applicable

Vapor Density Evaporation Rate

Not applicableFine powder

Viscosity Color Not applicable Black

Appearance Odor

Odorless

Section 7. Fire and Explosion Data

Flash Point(Method Used)

: Not applicable

Ignition Temperature

: >350°C

Flammable Limits

(LEL); Not applicable

(UEL); Not applicable

Extinguishing Media

CO2, dry chemical, foam or water

Special Fire Fighting Procedure

None

Unusual Fire and Explosion Hazard

This material has no unusual fire or explosion hazards.

Sensitivity to Mechanical Impact

: None

Sensitivity to Static Charge

: None

Section 8. Reactivity Data

Stability

: Stable

Incompatibility (Material to Avoid)

Strong acids and alkalines.

Hazardous Decomposition

: CO, CO2 and NOx

Hazardous Polymerization

: Will not occur.

Section 9. Precautions for Safe Handling and Use

Personal Protection Information (Respiratory, Eye Protection and Protective Glove):

Use of a dust mask is recommended when handling a large quantity of toner or during long

term exposure, as with any non-toxic dust.

Engineering Control / Ventilation

: Not required.

Work / Hygienic Practice

: Inhalation should be minimized as with any non-toxic dust.

Steps to be taken in case of Spill or Leak :

Sweep up or clean up with vacuum cleaner.

Waste Disposal Method

: Waste material may be disposed under conditions which meet all

federal, state and local environmental regulations.

Section 10. Regulatory Information

NFPA Rating (U.S.A.)

Health = 1

Flammability = 1

Reactivity = 0

WHMIS Legislation (Canada)

This product is not a controlled product.

Transport Information

This product is not a hazardous material.

UN No.

: None allocated.

Section 11. Other Information

References :

IARC (1996) IARC Monographs 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,

pp-149-261

H. Muhle, B. Bellmann, O. Creutzenberg, C. Dasenbrock, H. Ernst, R. Kilpper, J. C. MacKenzie,

P. Morrow, U. Mohr, S. Takenaka, and R. Mermelstein (1991) Pulmonary Response to Toner upon Chronic

Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp. 280-299