S H A R P

Revised Date: 1998. Oct. 27
Date Issued : 1996. Feb. 9

MATERIAL SAFETY DATA SHEET (1/2)

MSDS No. B-1006

Section 1. Product Identification

Product Code: UX-10CR, FO-16CR, UX-15CR, FO-15CR, PRBNN2005SCZZ IMAGING FILM
For use with : FO-1450, FO-1460, FO-1660M, FO-730, UX-310, UX-370, UX-470

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.

(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 : 1-800-424-9300
United Kingdom	Sharp Electronics(U.K.)Ltd. Telephone number for information: 01923-474013

Section 3. Ingredients

Ingredients	Cas No.	Proportion	OSHA PEL	ACGIH TLV	Other Limits
Polyethylene terephthalate	25038-59-9	51.0%	—	—	—
Carbon black	1333-86-4	8.5%	3.5mg/m^3	3.5mg/m^3	—
Ethylene-vinyl acetate copolymer	24937-78-8	3.1%	—	—	—
Ester wax	8015-86-9	5.6%	—	—	—
Paraffin wax	8002-74-2	12.5%	—	2mg/m^3(fume)	—
Microcrystalline wax	63231-60-7	15.2%	—	—	—
Modified wax	8016-60-2	1.3%	—	—	—
Polyester resin	27923-68-8	1.3%	—	—	—
Others	—	1.5%	—	—	—

Section 4. Hazardous Identification (Emergency Overview)

This product is ink film for thermal transfer facsimil.
"Ink film" is a thin film coated with ink. It is no special hazard under normal use condition.

Section 5. Health Hazard Data

Route(s) of Entry : Inhalation? not applicable; Skin? not applicable; Ingestion? possible but very unusual

Health Hazards : The ingredients are not listed in ACGIH(1986) and OSHA(1989) except carbon black and paraffin wax.

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.

Signs and Symptoms of Exposure : not applicable
Medical Conditions Generally Aggravated by Exposure : not applicable
Emergency and First Aid Procedures : not applicable

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MATERIAL SAFETY DATA SHEET (2/2)

MSDS No. B-1006

Section 6. Physical Chemical Characteristics

Boiling/Melting Point : m.p. about 70°C for ink
Vapor Pressure : not applicable.
Vapor Density : not applicable
Evaporation Rate : negligible
Appearance : thin film coated with ink
Odor : slight wax odor

Specific Gravity : about 1
Solubility in Water : negligible
PH : not applicable
Viscosity : not applicable
Color : black

Section 7. Fire and Explosion Data

Flash Point (Method Used) : about 250°C for ink
Ignition Temperature : not applicable
Flammable Limits : (LEL); not applicable (UEL); not applicable
Extinguishing Media : CO_2, water, dry chemicals and foam etc.
Special Fire Fighting Procedure : none
Unusual Fire and Explosion Hazard : none
Sensitivity to Mechanical Impact : no hazardous effect by mechanical impact
Sensitivity to Static Charge : not applicable

Section 8. Reactivity Data

Stability : stable
Incompatibility (Materials to Avoid) : none
Hazardous Decomposition : not applicable
Hazardous Polymerization : not applicable

Section 9. Precautions for Safe Handling and Use

Personal Protection Information(Respiratory, Eye Protection and Protective Glove) : not required
Engineering Control/Ventilation : not required
Work/Hygienic Practice : none
Steps to be taken in case of Spill or Leak :
If rumple the product and wax layer peel off, sweep up or clean with vacuum cleaner.
If it dirty skin, wash with water and soap. If it dirty clothes, wash by suitable method.
Waste Disposal Method :
Dispose in an approved incinerator or contract with licensed chemical disposal agency. Ensure conformity with governmental disposal regulations. (Dispose by the same method of ordinaly plastic products.)

Section 10. Regulatory Information

NFPA Rating (U.S.A.) : no information
WHMIS Legislation(Canada) : not controlled
Transport Information : no information
UN No. : no information

Section 11. Other Information

Reference : IARC (1996) 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