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S H A R P

MATERIAL SAFETY DATA SHEET (1/3)

MSDS No. B-1008

Section 1. Product Identification

Product Code: FO-45ND, FO-45DC, DUNT-499ASCZZ, DUNT-499ASCZA Toner Cartridge
For use with : FO-4500, FO-5600

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
Polyester resin	361615-5042-P	>85%			
Carbon black	1333-86-4	1-5%	3.5mg/m^3	3.5mg/m^3	
Polypropylene	9003-07-0	1-5%			
Organic pigment	361615-5025-P	1-5%			

Section 4. Hazardous Identification (Emergency Overview)

Toner is a fine, black powder prossessing 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, syudies do not indicate any symptoms of fibrosis will occur.

Section 5. Health Hazard Data

Route(s) of Entry : Eye contact, inhalation, ingestion

Health Hazards : No data available

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.

Signs and Symptoms of Exposure : No symptoms expected under intended use.

Medical Conditions Generally Aggravated by Exposure : None

MATERIAL SAFETY DATA SHEET (2/3)

MSDS No. B-1008

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/m^3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m^3) exposure group, but no pulmonaly change was reported in the lowest (1mg/m^3) exposure group, the most relevant level to potential human exposures.

Emergency and First Aid Procedures :

Inhalation : If symptoms are experienced, remove source of contamination or move victim to fresh air and obtain medical advice.

Eye Contact : Do not allow victim to rub eye(s). Flush with gently flowing water (lukewarm preferable) for 15 minutes or untill particle is removed. Have victim look right and left, and, then up and down. If irritation does occur, obtain medical attention. DO NOT attempt to manually remove anything stuck to the eye(s).

Ingestion : If irritation or discomfort occur, obtain medical attention immediately.

Section 6. Physical Chemical Characteristics

Boiling/Melting Point : N.AP.
Vapor Pressure : N.AP.
Vapor Density : N.AP.
Evaporation Rate : N.AP.
Appearance : powder
Odor : Faint odor

Specific Gravity : 1.2
Solubility in Water : Negligible
PH : N.AP.
Viscosity : N.AP.
Color : Black

Section 7. Fire and Explosion Data

Flash Point (Method Used) : N.AP.
Ignition Temperature : 450° C
Flammable Limits : (LEL); N.AP. (UEL); N.AP.
Extinguishing Media : CO_2, water spray, foam and dry chemical
Special Fire Fighting Procedure : None
Unusual Fire and Explosion Hazard : If dispersed in air, like most finely divided organic powders, may form an explosive mixture.
Sensitivity to Mechanical Impact : None
Sensitivity to Static Charge : None

Section 8. Reactivity Data

Stability : Stable
Incompatibility (Materials to Avoid) : Oxidizing materials
Hazardous Decomposition : CO, CO_2
Hazardous Polymerization : None

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 : None required under intended use.
Work/Hygienic Practice : Inhalation should be minimized as with any non-toxic dust.

S H A R P
MATERIAL SAFETY DATA SHEET (3/3)

Steps to be taken in case of Spill or Leak:
Wipe off with paper or cloth. DO NOT use vacuum cleaner when released a large amount. It, like most finely divided organic powders, may create a dust explosion.

Waste Disposal Method:
Preparation(community provisions): Waste may be disposed or incinerated under conditions which meet all federal, state and local environmental regulations.

Contaminated Packaging: Waste may be disposed or incinerated 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): None
Transport Information: None
UN No. : Not listed

Section 11. Other Information

Reference: 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