

S H A R P

Date Revised: Apr. 8. 2008
Date Issued : Sep. 16. 2004

MATERIAL SAFETY DATA SHEET (1/4)

MSDS No. B-1021

Section 1. Product and Company Identification

Product Name : Toner Cartridge of AM-900, AM-700, AM-300, AM-400, AM-30DC, AM-90ND, FO-42DC, FO-25ND, FO-25DC, DUNT-29LDXH01

Supplier Identification : 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)
North America	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
Oceania	Australia New Zealand	AUSTRALIA SHARP CORPORATION OF AUSTRALIA PTY. LTD.: (Phone) 02-9830-4600, 1800 807 820 NEW ZEALAND SHARP CORPORATION OF NEW ZEALAND LTD.: (Phone) 09-634-2059
Europe	Germany	Sharp Electronics (Europe) GMBH Sonninstrasse 3, 20097 Hamburg Telephone number to access MSDS : 040-2376-2185 For more information : 040-2376-2613
	United Kingdom	Sharp Electronics (U. K.) Ltd. Telephone number for information : 01923-474013
	France	Sharp Electronics France S.A. Telephone number for information : 01-49-90-34-00
	Austria	Sharp Electronics GMBH Telephone number for information : 01-727-19-0
	Italy	Sharp Electronics (Italy) S.P.A. Telephone number for information : 02895951
	Spain	Sharp Electronics (Espana) S.A. Telephone number for information : 93-581-97-00
	Netherlands	Sharp Electronics Benelux B.V. Telephone number for information : 30-6359500
	Sweden	Sharp Electronics Nordic AB Telephone number for information : 08-634-36-00
	Switzerland	Sharp Electronics(Schweiz)AG Telephone number for information : 01-846-6111
Middle East	U.A.E.	Sharp Middle East FZE P.O.Box 17115 Jebel Ali, Dubai Telephone number for information : 04-815311

Section 2. Ingredients

Ingredients	Cas No.	Proportion	OSHA Z-Tables	ACGIH TLV	IARC	DFG-MAK(GER)	Other Limits
Polyester resin	+++	80-90%	—	—	—	—	—
Carbon black	1333-86-4	1-10%	3.5mg/m ³	3.5mg/m ³	2B	III 3B	++
Polyolefin wax	+++	1-10%	—	—	—	—	—
Magnetite	1317-61-9	1-10%	—	—	—	—	—
Amorphous silica	7631-86-9	< 1 %	—	—	—	—	—

++ : Worksafe-TWA(Austl) : 3 mg/m³, NTP(USA) : Not listed, EEC-No : 215-609-9,
Symbol (EC) : Not listed, R-Phrase (EC) : Not listed, California Proposition 65 : Listed
+++ : Supplier's confidential information

Section 3. Hazardous Identification

Emergency Overview : Black powder (mean dia. Is 5-15im by volume).

Almost odorless.

Classification : Not classified as dangerous. (1999/45/EC)

Most Important Hazards and Effects of the Products

Ingestion Effect : None currently known.

Inhalation Effect : None currently known. Minimal respiratory tract irritation may occur as with exposure to large amount of any non-toxic dust.

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Eye Effect : None currently known.

Skin Effect : None currently known.

Chronic Effects : Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, dose not result in inhalation of excessive dust.

Environment Hazards : No data are available on the adverse effects of this product on the environment.

Specific Hazards : Dust explosion (like most finely divided organic powders)

Section 4. First-Aid Measures

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Media: CO₂, water spray, foam and dry chemical

Extinguishing Media to Avoid: Full water jet

Fire and Explosion Hazards: If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

Protection of Firefighters: Use self-contained breathing apparatus (SCBA).

Section 6. Accidental Release Measures

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment (See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air (HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

Section 7. Handling and Storage

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

Storage

Technical Measures: None

Storage Conditions: Keep container closed. Store in a cool and dry place. Keep out of reach of children.

Incompatible Products: None

Section 8. Exposure Control/Personal Protection

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

OSHA-PEL(USA): 15mg/m³ ACGIH-TLV(USA): 10mg/m³ DFG-MAK(GER): 6mg/m³ Worksafe-TWA(Austl.): 10mg/m³

Personal Protective Equipment

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

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Section 9. Physical and Chemical Properties

Appearance			
Physical State:	Solid	Form:	Powder (mean dia. Is 5 – 15 um by volume)
Odor:	Almost odorless	Explosion Properties:	No data available
Boiling Point:	Not applicable	Solubility in water:	Insoluble in water.
Melting Point(°C):	Around 125C (275F) (Softing Point)	Color:	Black
Ignition Temperature(°C):	400 *	Specific Gravity :	1.2 *
Flash Point:	Not applicable	Vapor Pressure:	Not applicable
pH:	Not applicable	Partition Coefficient, n-Octanol/Water:	Not applicable

Section 10. Stability and Reactivity

Stability: Stable except above 200C (392F).
Hazardous Reactions: Dust explosion, like most finely divided organic powders.
Conditions to avoid: Electric discharge, throwing into fire.
Materials to Avoid: Oxidizing materials.
Hazardous Decomposition Products: CO, CO2, and smoke.
Hazardous Polymerization : Will not occur.

Section 11. Toxicological Information

Health Effects from Exposure: No symptoms expected with intended use.

Toxicological Data

Acute Toxicity:

Ingestion(oral), LD50(mg/kg) : >2000 (Rat) *

Dermal, LD50(mg/kg) : No data available

Inhalation, LD50(mg/l) : >1.93 (Rat, 4hour) *

(This was the highest attainable concentration.)

Eye irritation : Slight conjunctival irritation (Rabbit) *

Skin irritation : Non irritant (Rabbit) *

Sensitizer : Non sensitizer (Guinea pig)

Local Effects : See Chronic Toxicity or Long term Toxicity

Chronic Toxicity or Long term Toxicity :

In a two-year inhalation study of chronic toxicity and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1 mg/m3), the most relevant level to potential human exposures. A minimal to mild degree of fibrosis was noted in 22% of the animals at the middle exposure level (4 mg/m3), and a mild to moderate degree of fibrosis was observed in 92 % of the rats at the highest exposure level (16mg/m3). The lung changes observed in the higher exposure groups are interpreted in term of "lung overloading", a series of generic responses to the presence of large quantities of respirable, insoluble and relatively benign dusts retained for extended time periods in the lungs. Lung tumor frequency was unchanged among rats exposed to toner at the three exposure levels, and for air-only control rats.

Carcinogenicity

IARC Monographs: Not listed

NTP(USA): Not listed

OSHA Regulated(USA): Not listed

In 1996 the 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, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Mutagenicity : Negative * (AMES test)

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(* = Based on data for other products with similar ingredients)

Section 12. Ecological Information

No data are available on the adverse effects of this material on the environment.

Ecotoxicity : No data available

Mobility : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Section 13. Disposal Consideration

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

Section 14. Transport Information

Information on Code and Classifications According to International Regulations

UN Classification: None

Section 15. Regulatory Information

US Information

Information on the label: Not required

TSCA(Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

Ingredient carbon black subject to California Proposition 65 is bound in polymer-matrices so that warnings are not required.

EU Information

Information on the label (1999/45/EC) and 67/548/EEC) : Not required

Article 14 (2.1) of Directive 1999/45/EC is not applicable to this product.

Section 16. Other Information

HMIS Rating: The National Paint and Coating Association(USA): Health: 1 Flammability: 1 Reactivity: 0

Recommended Uses: Toner for Electrophotographic Equipment

Explanation of term : IARC 2B means "possible human carcinogen".

Restrictions: This information relates only to the specific material designated as supplied by the manufacturer. This information is supplied to us by the manufacturer and Sharp offers no warranties as to its accuracy and accepts no responsibilities for any typographical errors which may appear on these sheets. It is the responsibility of the user to determine the suitability of this product for each particular use.

Revision Information :

2004/Sep/16 Not applicable in this time due to new issue.

2005/Mar/15 Addition of model name "AM-30DC", "AM-300", "AM-400"

2007/Jul/13 Add two Models (FO-25ND, FO-25DC)

2008/Apr/8 Periodical review (no change)
