

Date Revised :Apr.25. 2002

Date Issued :May. 1. 2001

MSDS NO. F-00921

1.PRODUCT AND COMPANY IDENTIFICATION

Product Name : AR-C15NT1 / C15T1 / C15ST1, AR-C16NT1 / C16T1 / C16ST1 (Black Toner)
AR-C25NT1 / C25T1 / C25ST1 (Black Toner)

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) |
|----------------|--|
| 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 Kingdom | Sharp Electronics (U. K.) Ltd. Telephone number for information : 01923-47-4013 |
| Australia | Sharp Corporation of Australia PTY. Ltd.: Telephone number for information: •1300-13-50-22 |
| Germany | Sharp Electronics (Europe) GMBH••• Telephone number for information : 40-2376-2737 |

2.COMPOSITION/INFORMATION ON INGREDIENTS

| Substance[] | Preparation[X] | | | | | |
|-------------------|---------------------------|-------------------|----------------------|----------------------|----------------|--------------------|
| <u>Ingredient</u> | <u>CAS No.</u> | <u>Proportion</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> | <u>MAK-TWA</u> | <u>NOHSC-TWA</u> |
| Polyester resin | 75214-60-70 | 85-95% | Not listed | Not listed | Not listed | Not listed |
| Carbon black | 1333-86-4 | 5-10% | 3.5mg/m ³ | 3.5mg/m ³ | Not listed | 3mg/m ³ |
| Polypropylene | 9003-07-0 | 1-5% | Not listed | Not listed | Not listed | Not listed |
| Metal Complex dye | 109125-51-1 84179-66-8 | <1.5% | 0.5mg/m ³ | 0.5mg/m ³ | Not listed | Not listed |

3.HAZARDS IDENTIFICATION

Most Important Hazards and Effects of the Products

Human Health Effects : 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.

Environmental Effects : No data are available.

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

4.FIRST-AID MEASURES

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

Inhalation : Remove to fresh air. If symptoms occur, consult medical personnel.

Skin Contact : Wash with soap and water for 15 minutes or until particle is removed.
If irritation does occur, consult medical personnel.

Eye Contact : flush eyes immediately with water for 15 minutes. If irritation does occur, consult medical personnel.

Ingestion : Rinse with water and drink several glasses of water . If irritation or discomfort does occur, consult medical personnel.

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5.FIRE -FIGHTING MEASURES

Extinguishing Media : Water , CO2, foam and dry chemicals

Special Fire fighting Procedures : None

Fire and Explosion Hazards : Toner material, like most finely divided organic powders, may form an explosive mixture.

6.ACCIDENTAL RELEASE MEASURES

Personal Precautions : None

Environmental Precautions : None

Methods for Cleaning Up : Wipe off with paper or cloth. DO not use vacuum cleaner when a large amount is released. It, like most finely divided organic powders, is capable of creating a dust explosion.

7.HANDLING AND STORAGE

Handling

Technical Measures : None

Precautions : None

Safe Handling Advice : 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. Try not to disperse the particles.

Storage

• Technical Measures : None

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

• Incompatible Products : None

8.EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures

•• Ventilation : None required with intended use.

Exposure limit values

• OSHA-PEL(USA) : 15mg/m3 (Total Dust) , 5mg/m3 (Respirable Dust)

• ACGIH-TLV(USA): 10mg/m3(Total Dust) , 3mg/m3 (Respirable Dust)

Personal Protective Equipment

• Respiratory Protection : None required when used as intended in Sharp equipment.

• Hand Protection : None required when used as intended in Sharp equipment.

• Eye Protection : None required when used as intended in Sharp equipment.

• Skin Protection : None required when used as intended in Sharp equipment.

••• Other Protective equipment : Use of a dust mask and goggles are recommended when handling a large quantity of toner or during long term exposure, as with any non-toxic dust.

9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance

• Physical State : Solid

Form: Powder

Color: Black

Odor: odorless

Ph :

Not applicable

Boiling/Melting Point :

Not applicable

Softening Point(°C) :

106-123

Flash Point(°C) :

Not applicable

Ignition Point(°C) :

>350

Explosion Properties :

No data

Density(g/cm³) :

Approx. 1.1

(bulk density : Approx. 0.4)

Solubility in water :

Negligible

10.STABILITY AND REACTIVITY

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Stability : Stable

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 NOX

Further Information : None

11.TOXICOLOGICAL INFORMATION

Acute Toxicity

Ingestion(oral) : LD₅₀>2000mg/kg(Rats)

Dermal : No Data

Inhalation : No Data

Eye irritation : Not an irritant(Rabbits)

Skin irritation : Not an irritant(Rabbits)

Skin sensitizer : No Data

Mutagenicity : Negative(Ames Test)

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.

12.ECOLOGICAL INFORMATION

•••No data are available.

13.DISPOSAL CONSIDERATION

Waste from residues : Waste material may be dumped 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.

14.TRANSPORT INFORMATION

UN Classification : None

Land DOT(USA) : No dangerous substance

Sea IMDG : Not applicable

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Air ICAO-T I: Not applicable

15.REGULATORY INFORMATION

US Information

- TSCA(Toxic Substances Control Act):
 - All chemical substances in this product comply with all applicable rules or order under TSCA.
- SARA(Superfund Amendments and Reauthorization Act) Title III
 - 302 Extreme Hazardous Substance: None
 - 311/312 Hazard Classification: None

•EU Information

- 1999/45/EC and 67/548/EEC
 - Symbol & Indication: Not required
 - R-Phrase : Not required
- 76/769/EEC : All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

16.OTHER INFORMATION

NFPA Rating•USA• : Health=1• Flammability=1• Reactivity=0

WHMIS Legislation•Canada•: This product is not a controlled product.

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.

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. However, all materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we do not guarantee that these are the only hazards which exist.
