Section 1. Product and Company Identification

Product Name: Toner Cartridge of FO-47ND / FO-47DC / FO-47DCCN / FO-44ND / FO-50ND / FO-59DC / DUNT-455BSCZZ

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.

<table>
<thead>
<tr>
<th>Area</th>
<th>Country</th>
<th>Name and Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>U.S.A</td>
<td>Sharp Electronics Corporation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 1-800-237-4277</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emergency telephone number: 1-800-255-3924</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
<td>Sharp Electronics of Canada Ltd.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 905-890-2100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emergency telephone number: 1-800-424-9300</td>
</tr>
<tr>
<td>Oceania</td>
<td>Australia</td>
<td>AUSTRALIA SHARP CORPORATION OF AUSTRALIA PTY. LTD.:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 01923-474013</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>NEW ZEALAND SHARP CORPORATION OF NEW ZEALAND LTD.:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 09-634-2059</td>
</tr>
<tr>
<td>Europe</td>
<td>Germany</td>
<td>Sharp Electronics (Europe) GMBH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number to access MSDS: 040-2376-2185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For more information: 040-2376-2613</td>
</tr>
<tr>
<td></td>
<td>United Kingdom</td>
<td>Sharp Electronics (U. K.) Ltd.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 01923-474013</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>Sharp Electronics France S.A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 01-49-90-34-00</td>
</tr>
<tr>
<td></td>
<td>Austria</td>
<td>Sharp Electronics GMBH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 01-727-19-0</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>Sharp Electronics (Italy) S.P.A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 02895951</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>Sharp Electronics (Espana) S.A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 93-581-97-00</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>Sharp Electronics Benelux B.V.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 30-63595000</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>Sharp Electronics Nordic AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 08-634-36-00</td>
</tr>
<tr>
<td>Middle East</td>
<td>U.A.E.</td>
<td>Sharp Middle East FZE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P.O.Box 17115 Jebel Ali, Dubai</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone number for information: 04-815311</td>
</tr>
</tbody>
</table>

Section 2. Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Cas No.</th>
<th>Proportion</th>
<th>OSHA Z-Tables</th>
<th>ACGIH TLV</th>
<th>IARC</th>
<th>DFG-MAK(GER)</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester resin</td>
<td>Trade Secret</td>
<td>&gt;90%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>1-5%</td>
<td>3.5mg/m3</td>
<td>3.5mg/m3</td>
<td>2B</td>
<td>III 3B</td>
<td>TWA(Austl) : 3 mg/m³</td>
</tr>
<tr>
<td>Polyolefin wax</td>
<td>9003-07-0</td>
<td>1-5%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Organic pigment</td>
<td>Trade Secret</td>
<td>1-5%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 3. Hazardous Identification

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

Most Important Hazards and Effects of the Products

For Human Health: This toner is not classified as a human carcinogen. No symptoms expected with intended use.

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

For others: None

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

Section 4. First-Aid Measures

Symptoms of Overexposure: No symptoms expected with intended use.

Routes of Entry: Eye contact, inhalation, ingestion

Information

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air and obtain medical advice.
Section 5. Fire-Fighting Measures

Suitable Extinguishing Media: CO2, water spray, foam and dry chemical
Extinguishing Media to Avoid: Full water jet
Special Firefighting Procedures: None
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: Wipe off with paper or cloth. DO NOT use vacuum cleaner when a large amount is released. It, like most finely divided organic powders, may create a dust explosion.

Section 7. Handling and Storage

Handling
Technical Measures: None
Precautions: None
Safe Handling Advice: Try not to disperse the particles.
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): 4mg/m3 Worksafe-TWA(Austl.): 10mg/m3

Personal Protective Equipment
None required when used as intended in Sharp equipment. For use other than normal customer-operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

Section 9. Physical and Chemical Properties

Appearance
Physical State: Solid
Form: Powder
Color: Black
Odor: Faint odor
Particle Size(µm): 5 - 15
Boiling Point: Not applicable
Melting Point(°C): No data available
Softening Point(°C): 120 - 130 *
Flash Point: Not applicable
pH: Not applicable

Explosion Properties: No data available
Density(g/cm³): 1.2 (bulk density: 0.5)
Solubility in water: Negligible
Oxidizing Properties: No data available
Ignition Temperature(°C): 450 *
Vapor Pressure: Not applicable
Section 10. Stability and Reactivity

Stability: Stable [ X ]  Unstable [ ]
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

Section 11. Toxicological Information

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

Acute Toxicity:
- Inhalation, LC50(mg/l): >0.74 (Rat,4hour) * (This was the highest attainable concentration.)
- Ingestion(oral), LD50(mg/kg): >5000 (Rat) *
- Dermal, LD50(mg/kg): >2000 (Rat) *
- Eye irritation: Non irritant (Rabbit) *
- Skin irritation: Non irritant (Rabbit) *
- Skin sensitizer: No data available
Mutagenicity: Negative * (AMES test)
(= Based on data for other products with similar ingredients)

Local Effects: see Chronic Toxicity or Long term Toxicity
Chronic Toxicity or Long Term Toxicity: Prolonged inhalation of excessive dust may cause lung damage. It is attributed to “lung overloading”, a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, does not result in inhalation of excessive dust.
In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of 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.

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.

Section 12. Ecological Information

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

Section 13. Disposal Consideration

Appropriate Methods of Disposal

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.

Precautions: Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.

Section 14. Transport Information
Special Precautions: None
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.
SARA(Superfund Amendments and Reauthorization Act) Title III
302 Extreme Hazardous Substance: None
311/312 Hazard Categories: None
313 Reportable Ingredients: None
California Proposition 65:
This product contains no chemical substances subject to California Proposition 65.

EU Information
Symbol & Indication : Not required
R-phrase : Not required
S-phrase : Not required

76/769/EEC:
All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

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

Section 16. Other Information

NFPA Hazard Rating: The National Fire Protection Agency(USA): Health: 1 Flammability: 1 Reactivity: 0
HMIS Rating: The National Paint and Coating Association(USA): Health: 1 Flammability: 1 Reactivity: 0
Recommended Uses: Toner for Electrophotographic Equipment
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.

Literature References:
ANSI Z400.1-1993
ISO 11014-1

Revision Record :
Apr. / 8 / 2008 Periodical review
Apr. / 23 / 2003 Change : Section 8 : DFG-MAK (GER) : 6mg/m3 4mg/m3
<table>
<thead>
<tr>
<th>Oct. / 7 / 2002</th>
<th>Addition: Contact information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change: Section 15  EU information: &quot;88 / 379 / EEC&quot;  &quot;1999 / 45 / EC&quot;</td>
<td></td>
</tr>
<tr>
<td>July / 22/2002</td>
<td>Addition: Product Name FO-44ND / FO-50ND</td>
</tr>
</tbody>
</table>