



# MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Identification

Product Name **Black Toner For FS-1320D, FS-1370DN**  
 Manufacturer Kyocera Mita Corporation  
 Address Kyocera Mita America, Inc.  
 225 Sand Road  
 Fairfield, NJ 07004  
 Telephone Number (973)-808-8444  
 Date December 28, 2011

## Section 2. Composition/Information on Ingredients

| <i>Hazardous Components<br/>(Chemical Identity, Common Name/s)</i> | OSHA PEL<br>Subpart Z                    | ACGIH TLV                 | IARC    | NTP        | Weight% |
|--|--|---------------------------|---------|------------|---------|
| (CAS No. 13463-67-7) Titanium dioxide                              | 15mg/m <sup>3</sup><br>(Total dust)(TWA) | 10mg/m <sup>3</sup> (TWA) | Group2B | Not listed | <1      |
|  |  |                           |         |            |         |
|  |  |                           |         |            |         |
|  |  |                           |         |            |         |
| <i>(Non Hazardous Ingredients)</i>                                 |  |                           |         |            |         |
| Styrene acrylate copolymer 1                                       |  |                           |         |            | 50-60   |
| Magnetite  |  |                           |         |            | 40-50   |
| Styrene acrylate copolymer 2                                       |  |                           |         |            | 1-5     |
| Wax  |  |                           |         |            | 1-5     |

## Section 3. Hazards Identification

Most Important Hazards: None

Specific Hazards: None

Other Information on Hazards: Potential Health Effects

- Ingestion Ingestion is not applicable route of entry for intended use.
- Inhalation Prolonged inhalation of excessive dusts may cause lung damage.  
Use of this product, as intended, does not result in inhalation of excessive dusts.
- Eye Contact May cause transient eye irritation.
- Skin Contact Unlikely to cause skin irritation.

## Section 4. First Aid Measures

First Aid Measures

- Inhalation Remove from exposure to fresh air and gargle with plenty of water.  
Seek medical treatment in case of such a symptom as coughing.
- Skin Contact Wash with soap and water.
- Eye Contact Flush thoroughly with water and seek medical treatment if irritating.
- Ingestion Rinse out the mouth. Dilute stomach contents with several glasses of water and seek medical treatment if necessary.

## Section 5. Fire Fighting Measures

|                         |   |
|-------------------------|---|
| Extinguishing Media     | Water, (Sprinkle with water), Foam, Powder, CO <sub>2</sub> or Dry Chemical Extinguisher.   |
| Fire Fighting Procedure | Pay attention not to blow away toner powder. Drain water off around and decrease the atmosphere temperature to extinguish the fire. |

## Section 6. Accidental Release Measures

|                           |  |
|---------------------------|--|
| Personal Precautions      | Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release. |
| Environmental Precautions | Do not release into drains and surface water.  |
| Method for Cleaning Up    | Gather the released toner not to blow away and to wipe up with a wet cloth.            |

## Section 7. Handling and Storage

|          |  |
|----------|--|
| Handling | Keep the toner container tightly closed.<br>Handle in accordance with good industrial hygiene and safety practices.            |
| Storage  | Keep the toner container tightly closed and store in a cool, dry and dark place. Keep away from fire. Keep away from children. |

## Section 8. Exposure Controls/Personal Protection

### Control Parameters<Reference Data>:

|                               |   |
|-------------------------------|---|
| ACGIH TLV <sub>(2)</sub> -TWA | Inhalable fraction 10mg/m <sup>3</sup> , Respirable fraction 3mg/m <sup>3</sup> |
| OSHA PEL <sub>(3)</sub> -TWA  | Total Dust 15mg/m <sup>3</sup> , Respirable fraction 5mg/m <sup>3</sup>         |

### Protective Equipment

|                        |                                 |
|------------------------|---------------------------------|
| Respiratory Protection | None required under normal use. |
| Eye/Face Protection    | None required under normal use. |
| Hand Protection        | None required under normal use. |
| Skin/Body Protection   | None required under normal use. |

|             |   |
|-------------|---|
| Ventilation | Ventilator not required under normal use. |
|-------------|---|

## Section 9. Physical and Chemical Properties

|                      |  |
|----------------------|--|
| Appearance           |  |
| Physical state       | Solid  |
| Form                 | Fine powder  |
| Color                | Black  |
| Odor                 | Odorless   |
| pH                   | Not applicable   |
| Melting Point        | 140 <sup>0</sup> C   |
| Explosion Properties | Dust explosion is improbable under normal use.<br>Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to pressure rising speed. |
| Density              | 1.5-2.0g/cm <sup>3</sup>   |
| Solubility           | Almost insoluble in water.   |

## Section 10. Stability and Reactivity

Stability / Reactivity                      Stable under normal use.  
Hazardous Decomposition Products      None

## Section 11. Toxicological Information

Acute oral toxicity                          (rat)LD<sub>50</sub>>2,500mg/kg (Estimated from other products containing same materials.)  
Acute dermal toxicity                      (rat)LD<sub>50</sub>>2,000mg/kg (Estimated from other products containing same materials.)  
Acute inhalation toxicity                (rat)LC<sub>50</sub>(4hr)>5.13mg/l (Estimated from other products containing same materials.)  
Acute eye irritation                        (rabbit)Mild irritant (Estimated from other products containing same materials.)  
Acute skin irritation                        (rabbit)Non-irritant (Estimated from other products containing same materials.)  
Skin sensitization                         (mouse)Non-sensitiser (Estimated from other products containing same materials.)  
Mutagenicity  
Information of Ingredients:                Ames Test is Negative.  
No mutagen, according to MAK, TRGS905 and (EC)No. 1272/2008 AnnexVI Table3.2.  
Reproductive Toxicity  
Information of Ingredients:                No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and (EC)No. 1272/2008 AnnexVI Table3.2.  
Carcinogenicity  
Information of Ingredients:                No carcinogen or potential carcinogen (except titanium dioxide) according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity.<sup>(4)</sup> In the animal chronic inhalation studies for titanium dioxide, the lung tumor was observed in only rats. It is estimated that this is attributed to the overload of rat's lung clearance mechanism (overload phenomenon).<sup>(5)</sup> The inhalation of excessive titanium dioxide does not occur in normal use of this product. Also, epidemiological studies to date have not revealed any evidence of the relation between occupational exposure to titanium dioxide and respiratory tract diseases.

### Chronic effects:

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 the rats in the high concentration (16mg/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m<sup>3</sup>) exposure group.<sup>(1)</sup> But no pulmonary change was reported in the lowest (1mg/m<sup>3</sup>) exposure group, the most relevant level to potential human exposures.

Other Information                          None

## Section 12. Ecological Information

No Data Available

## Section 13. Disposal Considerations

Do not incinerate toner and toner containers. Dangerous sparks may cause burn. Any disposal practice should be done under conditions which meet local, state and federal laws and regulations relating to waste(contact local or state environmental agency for specific rules).

## Section 14. Transport Information

|                     |       |
|---------------------|-------|
| UN No.              | None. |
| UN Shipping Name    | None. |
| UN Classification   | None. |
| UN Packing Group    | None. |
| Special Precautions | None. |

## Section 15. Regulatory Information

### EU Information

Label information according to the Directives 67/548/EEC and 1999/45/EEC.

|                                    |               |
|------------------------------------|---------------|
| Symbol and Indication              | Not required. |
| R-Phrase                           | Not required. |
| S-Phrase                           | Not required. |
| Special markings                   | Not required. |
| Hazardous ingredients for labeling | None          |

### US Information

All components in this product comply with order under TSCA.

### Canada Information

This product is not a WHMIS-controlled product, since we consider it as a Manufactured article.

## Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

### <Reference>

- (1) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats H. Muhle et. al Fundamental and Applied Toxicology 17.280-299(1991)  
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic Inhalation Exposure in Rats B Bellmann Fundamental and Applied Toxicology 17.300-313(1991)
- (2) ACGIH TLV (Threshold Limit Values)
- (3) OSHA PEL (Permissible Exposure Limits)
- (4) IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.93.
- (5) NIOSH CURRENT INTELLIGENCE BULLETIN "Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide DRAFT".  
\*ISO 11014-1 Safety data sheet for chemical products.

### <Abbreviation>

|                |  |
|----------------|--|
| ACGIH          | American Conference of Governmental Industrial Hygienists                  |
| OSHA           | Occupational Safety and Health Administration                              |
| TWA            | Time Weighted Average  |
| IARC           | International Agency for Research on Cancer                                |
| EPA            | Environmental Protection Agency (USA)                                      |
| NTP            | National Toxicology Program  |
| MAK            | Maximale Arbeitsplatzkonzentrationen unter Deutsche Forschungsgemeinschaft |
| Proposition 65 | CA Safe Drinking Water and Toxic Enforcement Act of 1986.                  |
| TRGS905        | Technische Regeln für Gefahrstoffe (Deutsche)                              |
| UN             | United Nations   |
| TSCA           | Toxic Substances Control Act (USA)   |
| WHMIS          | Workplace Hazardous Materials Information System(Canada)                   |

\*\*\*\*\*  
**End of MSDS**  
 \*\*\*\*\*