



# MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Identification

Product Name **Black Toner For FS-C5200DN**  
 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

Hazardous Components (Chemical Identity, Common Name/s)	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 1333-86-4) Carbon black	3.5mg/m <sup>3</sup> (TWA)	3.5mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	5-10
(CAS No. 7631-86-9) Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7) Titanium dioxide	15mg/m <sup>3</sup> (Total dust)(TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin					70-80
Styrene acrylate copolymer					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

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 with water immediately and seek medical treatment if irritating.

Ingestion Rinse out mouth. Dilute stomach contents with several glasses of water and seek medical treatment if necessary.

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## Section 5. Fire Fighting Measures

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

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## Section 6. Accidental Release Measures

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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. Do not blow away. Wipe up with a wet cloth.

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## Section 7. Handling and Storage

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Handling	Avoid inhalation, ingestion, skin or eye contact. Keep away from children. Keep the container tightly closed.
Storage	Store in a cool, dry and dark place keeping away from fire. Keep the toner container tightly closed. Keep away from children.

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## Section 8. Exposure Controls/Personal Protection

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### 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.
Skin/Hand/Body Protection	None required under normal use.

Ventilation Ventilator not required under normal use.

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## Section 9. Physical and Chemical Properties

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### Appearance

Physical state	Solid
Form	Fine powder
Color	Black
Odor	Odorless
pH	Not applicable
Melting Point	100-120 <sup>0</sup> C
Explosive Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	1.2-1.4g/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>>2,000mg/kg (Estimated from other products containing same materials.)  
 Acute dermal toxicity                    (rat)LD<sub>50</sub>>2,000mg/kg (Estimated from Acute oral toxicity for same product.)  
 Acute inhalation toxicity              (rat)LC<sub>50</sub>(4 hr)>5.02mg/l (Estimated from other products containing same materials.)  
 Acute eye irritation                    (rabbit) Minimal irritant (Estimated from other products containing same materials.)  
 Acute skin irritation                    (rabbit) Mild irritant (Estimated from other products containing same materials.)  
 Skin sensitization                      (mouse)Non-Sensitizer (Estimated from other products containing same materials.)

**Mutagenicity**                            Ames Test is Negative. (Estimated from the data of constituent materials.)  
 Information of Ingredients              No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.

**Reproductive Toxicity**                No reproductive toxicant, according to MAK, CA Proposition 65, TRGS 905 and  
 Information of Ingredients              (EC)No 1272/2008 AnnexVI Table3.2.

**Carcinogenicity**                        No carcinogen or potential carcinogen (except carbon black and titanium dioxide),  
 Information of Ingredients              according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP,  
    MAK, CA Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated carbon black and 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. (4) The evaluation of carbon black is based upon the development of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung. The studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-years cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.(1)  
 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).(5) 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.(1) 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



## Section 1. Chemical Product and Company Identification

**Product Name**                    **Cyan Toner For FS-C5200DN**  
**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

Hazardous Components (Chemical Identity, Common Name/s)	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 7631-86-9)    Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA) 15mg/m <sup>3</sup>	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7)    Titanium dioxide	(Total dust)(TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					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

- 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 with water immediately and seek medical treatment if irritating.
- Ingestion    Rinse out 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	Do not 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. Do not blow away. Wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling	Avoid inhalation, ingestion, skin or eye contact. Keep away from children. Keep the toner container tightly closed.
Storage	Store in a cool, dry and dark place keeping away from fire. Keep the toner container tightly closed. 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.
Skin/Hand/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	Cyan
Odor	Odorless
pH	Not applicable
Melting Point	100-120 <sup>0</sup> C
Explosive Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	1.2-1.4g/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>>2,000mg/kg (Estimated from other products containing same materials.)  
Acute dermal toxicity (rat)LD<sub>50</sub>>2,000mg/kg (Estimated from Acute oral toxicity for same product.)  
Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>4.98mg/l (This value is the maximum attainable concentration for dust.) (Estimated from other products containing same materials.)  
Acute eye irritation (rabbit) Minimal irritant (Estimated from other products containing same materials.)  
Acute skin irritation (rabbit) Mild irritant (Estimated from other products containing same materials.)  
Skin sensitization (mouse)Non-Sensitizer (Estimated from other products containing same materials.)  
Mutagenicity Ames Test is Negative. (Estimated from the data of constituent materials.)  
Information of Ingredients No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.  
Reproductive Toxicity  
Information of Ingredients No reproductive toxicant, according to MAK, CA Proposition 65, TRGS 905 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, CA 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. (4) 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). (5) 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. (1) 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 marking	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)
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### <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 under 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)

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**End of MSDS**  
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## Section 1. Chemical Product and Company Identification

**Product Name**                    **Magenta Toner For FS-C5200DN**  
**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

Hazardous Components (Chemical Identity, Common Name/s )	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 7631-86-9)    Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA) 15mg/m <sup>3</sup>	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7)    Titanium dioxide	(Total dust)(TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					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

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 with water immediately and seek medical treatment if irritating.

Ingestion           Rinse out 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	Do not 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. Do not blow away. Wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling	Avoid inhalation, ingestion, skin or eye contact. Keep away from children.
Storage	Store in a cool, dry and dark place keeping away from fire. Keep the toner container tightly closed. 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.
Skin/Hand/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	Magenta
Odor	Odorless
pH	Not applicable
Melting Point	100-120 <sup>0</sup> C
Explosive Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	1.2-1.4g/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>>2,000mg/kg (Estimated from other products containing same materials.)  
Acute dermal toxicity (rat)LD<sub>50</sub>>2,000mg/kg (Estimated from Acute oral toxicity for same product.)  
Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.02mg/l (Estimated from other products containing same materials.)  
Acute eye irritation (rabbit) Minimal irritant (Estimated from other products containing same materials.)  
Acute skin irritation (rabbit) Mild irritant (Estimated from other products containing same materials.)  
Skin sensitization (mouse)Non-Sensitizer (Estimated from other products containing same materials.)  
Mutagenicity Ames Test is Negative. (Estimated from the data of constituent materials.)  
Information of Ingredients No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.  
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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:

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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.

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### <Abbreviation>

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**End of MSDS**  
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# MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Identification

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 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

Hazardous Components (Chemical Identity, Common Name/s)	OSHA PEL SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 7631-86-9) Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA) 15mg/m <sup>3</sup>	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7) Titanium dioxide	(Total dust)(TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					1-5

## Section 3. Hazards Identification

Most Important Hazards None

Specific Hazards None

### 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

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 with water immediately and seek medical treatment if irritating.

Ingestion Rinse out 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	Do not 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. Do not blow away. Wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling	Avoid inhalation, ingestion, skin or eye contact. Keep away from children. Keep toner container tightly closed.
Storage	Store in a cool, dry and dark place keeping away from fire. Keep the toner container tightly closed. 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.
Skin/Hand/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	Yellow
Odor	Odorless
pH	Not applicable
Melting Point	100-120 <sup>o</sup> C
Explosive Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	1.2-1.4g/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> >2,000mg/kg (Estimated from other products containing same materials.)
Acute dermal toxicity	(rat)LD <sub>50</sub> >2,000mg/kg (Estimated from Acute oral toxicity for same product.)
Acute inhalation toxicity	(rat)LC <sub>50</sub> (4 hr)>5.02mg/l (Estimated from other products containing same materials.)
Acute eye irritation	(rabbit) Minimal irritant (Estimated from other products containing same materials.)
Acute skin irritation	(rabbit) Mild irritant (Estimated from other products containing same materials.)
Skin sensitization	(mouse)Non-Sensitizer (Estimated from other products containing same materials.)
Mutagenicity	Ames Test is Negative. (Estimated from the data of constituent materials.)
Information of Ingredients	No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.
Reproductive Toxicity	
Information of Ingredients	No reproductive toxicant, according to MAK, CA Proposition 65, TRGS 905 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, CA 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
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## 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)

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**End of MSDS**  
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## Section 1. Chemical Product and Company Identification

**Product Name**                    **Black Developer For FS-C5100DN, FS-C5200DN, FS-C5300DN, FS-C5350DN**  
**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

Hazardous Components (Chemical Identity, Common Name/s )	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4)    Ferrite(including manganese)	5mg/m <sup>3</sup> (Ceiling)(as Mn)	0.2mg/m <sup>3</sup> (TWA) (as Mn)	Not Listed	Not Listed	85-95 (as Mn:15-20)
(CAS No. 1333-86-4)    Carbon Black	3.5mg/m <sup>3</sup> (TWA)	3.5mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin					5-10

## 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 eye irritation.

**Skin Contact**                Unlikely to cause skin irritation.

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## Section 4. First Aid Measures

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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. If irritation does occur, seek medical treatment.
Eye Contact	Do not rub eyes. Flush thoroughly with water and seek medical treatment.
Ingestion	Ingestion is not applicable route of entry for intended use. Rinse out mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

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## Section 5. Fire Fighting Measures

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

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## Section 6. Accidental Release Measures

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Personal Precautions	Avoid inhalation, ingestion, eye and skin contact in case of accidental developer release.
Environmental Precautions	No special precaution.
Method for Cleaning Up	Gather the released developer, not blowing away, and wipe up with a wet cloth.

---

## Section 7. Handling and Storage

---

Handling	Keep the container tightly closed. Keep away from children.
Storage	Keep the container tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

---

## Section 8. Exposure Controls/Personal Protection

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### Control Parameters<Reference Data>

ACGIH TLV(2008)-TWA	Inhalable fraction 10mg/m <sup>3</sup> , Respirable fraction 3mg/m <sup>3</sup>
OSHA PEL(2006)-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.
Skin/Hand/Body Protection	None required under normal use.

Ventilation Ventilator is not required under normal use.

## Section 9. Physical and Chemical Properties

Appearance	
Physical state	Solid
Form	Fine powder
Color	Black
Odor	Odorless
pH	N.A.
Melting Point	N.A.
Explosion Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	3.5-5.0 g/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> >2,000mg/kg[Toner] (Estimated from other products containing same materials.) (rat)LD <sub>50</sub> >2,000mg/kg[Carrier] (Estimated from other products containing same materials.)
Acute dermal toxicity	(rat)LD <sub>50</sub> >2,000mg/kg[Toner] (Estimated from Acute oral toxicity for same product.)
Acute inhalation toxicity	(rat)LC <sub>50</sub> (4 hr)>5.02mg/l[Toner] (Estimated from other products containing same materials.)
Acute eye irritation	(rabbit) Minimal irritant [Toner] (Estimated from other products containing same materials.)
Acute skin irritation	(rabbit) Mild irritant [Toner] (Estimated from other products containing same materials.) (rabbit) Non irritant [Carrier] (Estimated from other products containing same materials.)
Skin sensitization	(mouse)Non-Sensitizer [Toner] (Estimated from other products containing same materials.) (guinea pig)Non-Sensitizer [Carrier] (Estimated from other products containing same materials.)
Mutagenicity	Ames Test is Negative. [Toner] (Estimated from the data of constituent materials.) Ames Test is Negative. [Carrier] (Estimated from other products containing same materials.)
Reproductive Toxicity	No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and EU Directive(67/548/EEC).
Carcinogenicity	No carcinogen or potential carcinogen (except carbon black) according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, California Proposition 65, TRGS905 and EU Directive (67/548/EEC).

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 rat receiving chronic inhalation exposures to free carbon black at level 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's cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

### 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. 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
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# MATERIAL SAFETY DATA SHEET

## Section 12. Ecological Information

No data available.

## Section 13. Disposal Considerations

Do not incinerate developer and developer 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

### 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.

### EU Information

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

Symbol & Indication	Not required
R-Phrase	Not required
S-Phrase	Not required
Special markings	Not required

Hazardous ingredients for labeling: Not required

## 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.

### Abbreviation

OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	Time Weighted Average
MAK	Maximale Arbeitsplatzkonzentrationen unter Deutsche Forschungsgemeinschaft
TRGS	Technische Regeln für Gefahrstoffe (Deutsche)
IARC	International Agency for Research on Cancer
EPA	Environmental Protection Agency (USA)
NTP	National Toxicology Program
ILO	International Labour Office
UN	United Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System(Canada)

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

## Section 1. Chemical Product and Company Identification

**Product Name**                    **Cyan Developer For FS-C5100DN, FS-C5200DN, FS-C5300DN, FS-C5350DN**  
**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

Hazardous Components (Chemical Identity, Common Name/s )	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4)    Ferrite(including manganese)	5mg/m <sup>3</sup> (Ceiling)(as Mn)	0.2mg/m <sup>3</sup> (TWA) (as Mn)	Not Listed	Not Listed	85-95 (as Mn:15-20)
(Non Hazardous Ingredients)					
Polyester resin					5-10

## 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 eye irritation.

**Skin Contact**                Unlikely to cause skin irritation.

## Section 4. 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. If irritation does occur, seek medical treatment.
Eye Contact	Do not rub eyes. Flush thoroughly with water and seek medical treatment.
Ingestion	Ingestion is not applicable route of entry for intended use. Rinse out mouth. Drink one or two glasses of water to dilute. 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.
Fire Fighting Procedure	Pay attention not to blow away developer powder. Drain water off around and decrease atmosphere temperature to extinguish the fire.

## Section 6. Accidental Release Measures

Personal Precautions	Avoid inhalation, ingestion, eye and skin contact in case of accidental developer release.
Environmental Precautions	No special precaution.
Method for Cleaning Up	Gather the released developer, not blowing away, and wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling	Keep the container tightly closed. Keep away from children.
Storage	Keep the container tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

## Section 8. Exposure Controls/Personal Protection

### Control Parameters<Reference Data>

ACGIH TLV(2008)-TWA	Inhalable fraction 10mg/m <sup>3</sup> , Respirable fraction 3mg/m <sup>3</sup>
OSHA PEL(2006)-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.
Skin/Hand/Body Protection	None required under normal use.

Ventilation	Ventilator is not required under normal use.
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## Section 9. Physical and Chemical Properties

Appearance	
Physical state	Solid
Form	Fine powder
Color	Cyan
Odor	Odorless
pH	N.A.
Melting Point	N.A.
Explosion Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	3.5-5.0 g/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> >2,000mg/kg[Toner] (Estimated from other products containing same materials.) (rat)LD <sub>50</sub> >2,000mg/kg[Carrier] (Estimated from other products containing same materials.)
Acute dermal toxicity	(rat)LD <sub>50</sub> >2,000mg/kg[Toner] (Estimated from Acute oral toxicity for same product.)
Acute inhalation toxicity	(rat)LC <sub>50</sub> (4 hr)>4.98mg/l[Toner] (Estimated from other products containing same materials.) [This value is the maximum attainable concentration for dust.]
Acute eye irritation	(rabbit) Minimal irritant [Toner] (Estimated from other products containing same materials.)
Acute skin irritation	(rabbit) Mild irritant [Toner] (Estimated from other products containing same materials.) (rabbit) Non irritant [Carrier] (Estimated from other products containing same materials.)
Skin sensitization	(mouse)Non-Sensitizer [Toner] (Estimated from other products containing same materials.) (guinea pig)Non-Sensitizer [Carrier] (Estimated from other products containing same materials.)
Mutagenicity	Ames Test is Negative. [Toner] (Estimated from other products containing same materials.) Ames Test is Negative. [Carrier] (Estimated from other products containing same materials.)
Reproductive Toxicity	No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and EU Directive(67/548/EEC).
Carcinogenicity	No carcinogen or potential carcinogen according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, California Proposition 65, TRGS905 and EU Directive (67/548/EEC).
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. 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
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# MATERIAL SAFETY DATA SHEET

## Section 12. Ecological Information

No data available.

## Section 13. Disposal Considerations

Do not incinerate developer and developer 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

### 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.

### EU Information

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

Symbol & Indication	Not required
R-Phrase	Not required
S-Phrase	Not required
Special markings	Not required
Hazardous ingredients for labeling	Not required

## 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.

### Abbreviation

OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	Time Weighted Average
MAK	Maximale Arbeitsplatzkonzentrationen unter Deutsche Forschungsgemeinschaft
TRGS	Technische Regeln für Gefahrstoffe (Deutsche)
IARC	International Agency for Research on Cancer
EPA	Environmental Protection Agency (USA)
NTP	National Toxicology Program
ILO	International Labour Office
UN	United Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System(Canada)

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



## Section 1. Chemical Product and Company Identification

**Product Name**                    **Magenta Developer For FS-C5100DN, FS-C5200DN, FS-C5300DN, FS-C5350DN**  
**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

Hazardous Components (Chemical Identity, Common Name/s )	OSHA PEL Subpart Z	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4) Ferrite(including manganese)	5mg/m <sup>3</sup> (Ceiling)(as Mn)	0.2mg/m <sup>3</sup> (TWA) (as Mn)	Not Listed	Not Listed	85-95 (as Mn:15-20)
(Non Hazardous Ingredients)					
Polyester resin					5-10

## 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 eye irritation.

**Skin Contact**                Unlikely to cause skin irritation.

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## Section 4. First Aid Measures

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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. If irritation does occur, seek medical treatment.
Eye Contact	Do not rub eyes. Flush thoroughly with water and seek medical treatment.
Ingestion	Ingestion is not applicable route of entry for intended use. Rinse out mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

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## Section 5. Fire Fighting Measures

---

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

---

## Section 6. Accidental Release Measures

---

Personal Precautions	Avoid inhalation, ingestion, eye and skin contact in case of accidental developer release.
Environmental Precautions	No special precaution.
Method for Cleaning Up	Gather the released developer, not blowing away, and wipe up with a wet cloth.

---

## Section 7. Handling and Storage

---

Handling	Keep the container tightly closed. Keep away from children.
Storage	Keep the container tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

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## Section 8. Exposure Controls/Personal Protection

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### Control Parameters<Reference Data>

ACGIH TLV(2008)-TWA	Inhalable fraction 10mg/m <sup>3</sup> , Respirable fraction 3mg/m <sup>3</sup>
OSHA PEL(2006)-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.
Skin/Hand/Body Protection	None required under normal use.

Ventilation	Ventilator is not required under normal use.
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## Section 9. Physical and Chemical Properties

Appearance	
Physical state	Solid
Form	Fine powder
Color	Magenta
Odor	Odorless
pH	N.A.
Melting Point	N.A.
Explosion Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	3.5-5.0 g/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> >2,000mg/kg[Toner] (Estimated from other products containing same materials.) (rat)LD <sub>50</sub> >2,000mg/kg[Carrier] (Estimated from other products containing same materials.)
Acute dermal toxicity	(rat)LD <sub>50</sub> >2,000mg/kg[Toner] (Estimated from Acute oral toxicity for same product.)
Acute inhalation toxicity	(rat)LC <sub>50</sub> (4 hr)>5.02mg/l[Toner] (Estimated from other products containing same materials.)
Acute eye irritation	(rabbit) Minimal irritant [Toner] (Estimated from other products containing same materials.)
Acute skin irritation	(rabbit) Mild irritant [Toner] (Estimated from other products containing same materials.) (rabbit) Non irritant [Carrier] (Estimated from other products containing same materials.)
Skin sensitization	(mouse)Non-Sensitizer [Toner] (Estimated from other products containing same materials.) (guinea pig)Non-Sensitizer [Carrier] (Estimated from other products containing same materials.)
Mutagenicity	Ames Test is Negative. [Toner] (Estimated from other products containing same materials.) Ames Test is Negative. [Carrier] (Estimated from other products containing same materials.)
Reproductive Toxicity	No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and EU Directive(67/548/EEC).
Carcinogenicity	No carcinogen or potential carcinogen according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, California Proposition 65, TRGS905 and EU Directive (67/548/EEC).

### 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. 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
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## Section 12. Ecological Information

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No data available.

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## Section 13. Disposal Considerations

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Do not incinerate developer and developer 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).

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## Section 14. Transport Information

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

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## Section 15. Regulatory Information

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### 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.

### EU Information

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

Symbol & Indication	Not required
R-Phrase	Not required
S-Phrase	Not required
Special markings	Not required
Hazardous ingredients for labeling: Not required	

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## Section 16. Other Information

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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.

### Abbreviation

OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	Time Weighted Average
MAK	Maximale Arbeitsplatzkonzentrationen unter Deutsche Forschungsgemeinschaft
TRGS	Technische Regeln für Gefahrstoffe (Deutsche)
IARC	International Agency for Research on Cancer
EPA	Environmental Protection Agency (USA)
NTP	National Toxicology Program
ILO	International Labour Office
UN	United Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System(Canada)

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End of MSDS  
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# MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Identification

Product Name **Yellow Developer For FS-C5100DN, FS-C5200DN, FS-C5300DN, FS-C5350DN**  
 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

Hazardous Components (Chemical Identity, Common Name/s )	OSHA PEL SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4) Ferrite(including manganese)	5mg/m <sup>3</sup> (Ceiling)(as Mn)	0.2mg/m <sup>3</sup> (TWA) (as Mn)	Not Listed	Not Listed	85-95 (as Mn:15-20)
(Non Hazardous Ingredients)					
Polyester resin					5-10

## 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 eye irritation.

Skin Contact Unlikely to cause skin irritation.

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## Section 4. First Aid Measures

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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. If irritation does occur, seek medical treatment.
Eye Contact	Do not rub eyes. Flush thoroughly with water and seek medical treatment.
Ingestion	Ingestion is not applicable route of entry for intended use. Rinse out mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

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## Section 5. Fire Fighting Measures

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

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## Section 6. Accidental Release Measures

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Personal Precautions	Avoid inhalation, ingestion, eye and skin contact in case of accidental developer release.
Environmental Precautions	No special precaution.
Method for Cleaning Up	Gather the released developer, not blowing away, and wipe up with a wet cloth.

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## Section 7. Handling and Storage

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Handling	Keep the container tightly closed. Keep away from children.
Storage	Keep the container tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

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## Section 8. Exposure Controls/Personal Protection

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### Control Parameters<Reference Data>

ACGIH TLV(2008)-TWA	Inhalable fraction 10mg/m <sup>3</sup> , Respirable fraction 3mg/m <sup>3</sup>
OSHA PEL(2006)-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.
Skin/Hand/Body Protection	None required under normal use.

Ventilation Ventilator is not required under normal use.

## Section 9. Physical and Chemical Properties

Appearance	
Physical state	Solid
Form	Fine powder
Color	Yellow
Odor	Odorless
Melting Point	N.A.
Explosion Properties	Dust explosion is improbable under normal use. Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.
Density	3.5-5.0g/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> >2,000mg/kg[Toner] (Estimated from other products containing same materials.) (rat)LD <sub>50</sub> >2,000mg/kg[Carrier] (Estimated from other products containing the same materials.)
Acute dermal toxicity	(rat)LD <sub>50</sub> >2,000mg/kg[Toner] (Estimated from Acute oral toxicity for same product.)
Acute inhalation toxicity	(rat)LC <sub>50</sub> (4 hr)>5.02mg/l[Toner] (Estimated from other products containing same materials.) [This value is the maximum attainable concentration for dust.]
Acute eye irritation	(rabbit) Minimal irritant [Toner] (Estimated from other products containing same materials.)
Acute skin irritation	(rabbit) Mild irritant [Toner] (Estimated from other products containing same materials.) (rabbit) Non irritant [Carrier] (Estimated from the other products containing the same materials.)
Skin sensitization	(mouse)Non-Sensitizer [Toner] (Estimated from other products containing same materials.) (guinea pig)Non-Sensitizer [Carrier] (Estimated from other products containing the same materials.)
Mutagenicity	Ames Test is Negative. [Toner] (Estimated from other products containing the same materials.) Ames Test is Negative. [Carrier] (Estimated from other products containing the same materials.)
Reproductive Toxicity	No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and EU Directive(67/548/EEC).
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Other Information	None
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# MATERIAL SAFETY DATA SHEET

## Section 12. Ecological Information

No data available.

## Section 13. Disposal Considerations

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## 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

### US Information

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### Canada Information

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

### EU Information

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

Symbol & Indication	Not required
R-Phrase	Not required
S-Phrase	Not required
Special markings	Not required
Hazardous ingredients for labeling:	Not required

## 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.

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TRGS	Technische Regeln für Gefahrstoffe (Deutsche)
IARC	International Agency for Research on Cancer
EPA	Environmental Protection Agency (USA)
NTP	National Toxicology Program
ILO	International Labour Office
UN	United Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System(Canada)

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**End of MSDS**  
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