

## Section 1. Chemical Product and Company Identification

**Product Name**                    **Black Toner For KM-4850w,P4845w,P4850w**  
**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 SubpartZ PEL	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
(Non Hazardous Ingredients)					
Styrene acrylate copolymer 1					80-90
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

**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	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, ingestions, 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. Keep away from fire. Keep away from children. Keep the toner container tightly closed.

## 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	Not required under normal use.
Eye/Face Protection	Not required under normal use.
Hand Protection	Not required under normal use.
Skin/Body Protection	Not 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	Not applicable
Melting Point	131 <sup>0</sup> C
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 pressure rising speed.
Density	1.0-1.2g/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 other products containing same materials.)  
Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.18mg/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) Non-irritant (Estimated from other products containing same materials.)  
Skin sensitization (guinea pig)0% sensitization rate  
(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), according to IARC,  
Information of Ingredients 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 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> 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-year's cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.<sup>(1)</sup>

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

---

## Section 12. Ecological Information

---

No data available.

---

## Section 13. Disposal Considerations

---

Do not incinerate developer and developer unit. 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/EC.

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

### <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 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)

\*\*\*\*\*

End of MSDS

\*\*\*\*\*

## Section 1. Chemical Product and Company Identification

**Product Name**                    **Black Developer For KM-4850w,P4845w,P4850w**  
**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 (Chemical Identity, Common Name/s)</i>	<i>OSHA PEL Subpart Z</i>	<i>ACGIH TLV</i>	<i>IARC</i>	<i>NTP</i>	<i>Weight%</i>
(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
<i>(Non Hazardous Ingredients)</i>					
(CAS No. 66402-68-4) Ferrite (Ferrite including copper and zinc)					>90
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 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 thoroughly with water immediately and seek medical treatment if irritating.

**Ingestion**                    Rinse out the mouth. Dilute stomach contents with several glasses of water. 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 developer. 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 developer release.
Environmental Precautions	No special precaution.
Method for Cleaning Up	Gather the released developer, 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 developer unit tightly closed. Keep away from fire.
Storage	Keep the developer unit tightly closed. 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	Not required under normal use.
Eye/Face Protection	Not required under normal use.
Hand Protection	Not required under normal use.
Skin/Body Protection	Not 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	>1500 <sup>0</sup> C
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 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 same materials.)

Acute dermal toxicity                    (rat)LD<sub>50</sub>>2,000mg/kg[Toner](Estimated from other products containing same materials.)

Acute inhalation toxicity                (rat)LC<sub>50</sub>(4hr)>5.18mg/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) Non-irritant[Toner](Estimated from other products containing same materials.)  
                                                       (rabbit) Non-irritant[Carrier](Estimated from other products containing same materials.)

Skin sensitization                        (guinea pig)0% sensitization rate[Toner]  
                                                       (Estimated from other products containing same materials.)  
                                                       (guinea pig)0% sensitization rate[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,CA Proposition 65,TRGS 905 and EU Directive (67/548EEC).

Carcinogenicity                            No carcinogen or potential carcinogen (except carbon black), according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, CA Proposition 65, TRGS 905 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.

Others                                        None

## Section 12. Ecological Information

No data available

## Section 13. Disposal Considerations

Do not incinerate developer and developer unit. 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/EC.

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.

### <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	MAK(Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft
TRGS	Technische Regein 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