

## Section 1. Chemical Product and Company Identification

Product Name **Black Toner For FS-C2026MFP, FS-C2126MFP, FS-C5250DN**  
 Manufacturer **Kyocera Document Solutions**  
 Address **Kyocera Document Solutions Canada, Ltd.  
 6120 Kestrel Road  
 Mississauga, Ontario L5T 1S8**  
 Telephone Number **(905) 670-4425**  
 Date **September 24, 2014**

## 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
(CAS No. 7631-86-9) Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not listed	1-5
(Non Hazardous Ingredients)					
Polyester resin					70-80
Styrene acrylate copolymer					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 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 No special precaution.  
Method for Cleaning Up Gather the released toner, do not blow away and wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling Avoid inhalation, ingestion, skin or eye contact. Keep toner container tightly closed. 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(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.  
Hand/Skin/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 100-120°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 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>(4hr)>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-Sensitiser (Estimated from other products containing same materials.)  
Mutagenicity                                Ames Test is Negative.  
    (Estimated from the data of constituent 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, 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.

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 toner and toner containers. Dangerous sparks may cause burn. Any disposal practice should be done under conditions which meet local, province and federal laws and regulations relating to waste (contact local or province 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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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 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.

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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.

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End of MSDS

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## Section 1. Chemical Product and Company Identification

**Product Name**                    **Cyan Toner For FS-C2026MFP, FS-C2126MFP, FS-C5250DN**  
**Manufacturer**                    Kyocera Document Solutions  
**Address**                            Kyocera Document Solutions Canada, Ltd.  
    6120 Kestrel Road  
    Mississauga, Ontario L5T 1S8  
**Telephone Number**            (905) 670-4425  
**Date**                                 September 24, 2014

## Section 2. Composition/Information on Ingredients

Hazardous Components (Chemical Identity, Common Name/s )	OSHA SubpartZ PEL	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 7631-86-9)      Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not listed	1-5
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					1-5
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 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	No special precaution.
Method for Cleaning Up	Gather the released toner do not blow away and 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(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.
Hand/Skin/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	Cyan
Odor	Odorless
pH	N.A.
Melting Point	100-120°Deg 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 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>(4hr)>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-Sensitiser (Estimated from other products containing same materials.)  
Mutagenicity Ames Test is Negative. (Estimated from the data of constituent 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, TRGS 905 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

## 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, province and federal laws and regulations relating to waste (contact local or province 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 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.

### <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 Labor Office
UN	Nnited Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System (Canada)

### <Reference>

- ISO 11014-1 Safety data sheet for chemical products
- Commission Directive 91/155/EEC and 2001/58/EC
- 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)

End of MSDS



## Section 1. Chemical Product and Company Identification

**Product Name**                    **Magenta Toner For FS-C2026MFP, FS-C2126MFP, FS-C5250DN**  
**Manufacturer**                    Kyocera Document Solutions  
**Address**                            Kyocera Document Solutions Canada, Ltd.  
     6120 Kestrel Road  
     Mississauga, Ontario L5T 1S8  
**Telephone Number**              (905) 670-4425  
**Date**                                 September 24, 2014

## Section 2. Composition/Information on Ingredients

Hazardous Components (Chemical Identity, Common Name/s)	OSHA SubpartZ PEL	ACGIH TLV	IARC	NTP	Weight %
(CAS No. 7631-86-9)    Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not listed	1-5
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					1-5
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 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 Procedures 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 No special precaution.  
Method for Cleaning Up Gather the released toner do not blow away and wipe up with a wet cloth.

## Section 7. Handling and Storage

Handling Avoid inhalation, ingestion, skin or eye contact. Keep away from children.  
Storage Keep the toner container tightly closed.  
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(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.  
Hand/Skin/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 Magenta  
Odor Odorless  
pH N.A.  
Melting Point 100-120<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 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>(4hr)>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-Sensitiser (Estimated from other products containing same materials.)  
Mutagenicity                                Ames Test is Negative. (Estimated from the data of constituent 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

## 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/EC.

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.

### <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 Labor Office
UN	Nnited Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System (Canada)

### <Reference>

- ISO 11014-1 Safety data sheet for chemical products
- Commission Directive 91/155/EEC and 2001/58/EC
- 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)

End of MSDS

## Section 1. Chemical Product and Company Identification

Product Name **Yellow Toner For FS-C2026MFP, FS-C2126MFP, FS-C5250DN**  
 Manufacturer **Kyocera Document Solutions**  
 Address **Kyocera Document Solutions Canada, Ltd.  
 6120 Kestrel Road  
 Mississauga, Ontario L5T 1S8**  
 Telephone Number **(905) 670-4425**  
 Date **September 24, 2014**

## Section 2. Composition/Information on Ingredients

Hazardous Components (Chemical Identity, Common Name/s )	OSHA SubpartZ PEL	ACGIH TLV	IARC	NTP	Weight %
(CAS No. 7631-86-9) Amorphous Silica	80mg/m <sup>3</sup> /%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not listed	1-5
(Non Hazardous Ingredients)					
Polyester resin 1					70-80
Polyester resin 2					5-10
Organic pigment					1-5
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 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	No special precaution.
Method for Cleaning Up	Gather the released toner do not blow away and 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(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.
Hand/Skin/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
pH	N.A.
Melting Point	100-120 <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 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>(4hr)>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-Sensitiser (Estimated from other products containing same materials.)  
Mutagenicity Ames Test is Negative.  
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

## 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, province and federal laws and regulations relating to waste (contact local or province 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 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.

### <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 Labor Office
UN	Nnited Nations
TSCA	Toxic Substances Control Act (USA)
WHMIS	Workplace Hazardous Materials Information System (Canada)

### <Reference>

- ISO 11014-1 Safety data sheet for chemical products
- Commission Directive 91/155/EEC and 2001/58/EC
- 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)

End of MSDS