

## Section 1. Chemical Product and Company Identification

**Product Name** Black Toner For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

April 07, 2016 Date

### Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA PEL				
(Chemical Identity, Common Name/s)	SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 1333-86-4) Carbon black	3.5mg/m³(TWA)	3.5mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	5-10
(CAS No. 7631-86-9) Amorphous silica	80mg/m³/%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7) Titanium dioxide	15mg/m <sup>3</sup> (TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin (2 kinds)					70-80
					-

## 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. If irritation does occur, seek medical treatment.

Eye Contact Flush thoroughly with water and seek medical treatment if irritating.

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, C02 or Dry Chemical Extinguisher.

Fire Fighting Procedure Pay attention not to blow away toner powder. Drain water off around and decrease

the atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

Personal Precautions Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release.

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner, not 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<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³ OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

Protective Equipment

Respiratory Protection

Eye/Face Protection

Skin/Hand/Body Protection

None required under normal use.

None required under normal use.

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  $(rat)LC_{50}(4hr)>5.0mg/I$  (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 (mouse)Non-Sensitiser (Estimated from other products containing same materials.)

Mutagenicity Ames Test is Negative.

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, California Proposition 65, TRGS905 and

(EC)No 1272/2008 AnnexVI Table3.2.

Carcinogenicity

Information of Ingredients: No carcinogen or potential carcinogen (except carbon black and titanium dioxide),

according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK,

California Proposition 65, TRGS905 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. 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.<sub>(1)</sub>

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group.<sub>(1)</sub> But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



#### **Ecological Information** Section 12.

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

#### **US** Information

All components in this product comply with order under TSCA.

#### **EU** Information

Classification according to Regulation (EC) No 1272/2008 (CLP) Not classified as hazardous mixture Labelling according to Regulation (EC) No 1272/2008 (CLP). Not Applicable

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.

- (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

International Agency for Research on Cancer IARC **FPA** 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. Technische Regeln für Gefahrstoffe (Deutsche)

TRGS905 UN **United Nations** 

**TSCA** Toxic Substances Control Act (USA)

Workplace Hazardous Materials Information System(Canada)

**End of MSDS** 



## Section 1. Chemical Product and Company Identification

Product Name Cyan Toner For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

## Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA PEL				
(Chemical Identity, Common Name/s)	SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 7631-86-9) Amorphous silica	80mg/m³/%SiO <sub>2</sub> (TWA)	Not Listed	Group3	Not Listed	1-5
(CAS No. 13463-67-7) Titanium dioxide	15mg/m <sup>3</sup> (TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin (2 kinds)					75-85
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. If irritation does occur, seek medical treatment.

Eye Contact Flush thoroughly with water and seek medical treatment if irritating.

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, C0<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedure Pay attention not to blow away toner powder. Drain water off around and decrease

the atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

Personal Precautions Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release.

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner not to blow away and 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<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³
OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

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.



#### **Physical and Chemical Properties** Section 9.

**Appearance** 

Physical state Solid

Form Fine powder Color Cyan Odor Odorless ΡH N.A.

100-120°C Melting Point

**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.

1.2-1.4g/cm<sup>3</sup> Density

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.)

(rat)LC<sub>50</sub>(4hr)>5.0mg/l (Estimated from other products containing same materials.) Acute inhalation toxicity 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 (mouse)Non-Sensitiser (Estimated from other products containing same materials.)

Mutagenicity

Information of Ingredients: No mutagen, according to MAK, TRGS905 and (EC) No 1272/2008 AnnexVI Table 3.2. No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and Reproductive Toxicity

Information of Ingredients: (EC)No 1272/2008 AnnexVI Table3.2.

No carcinogen or potential carcinogen (except titanium dioxide), according to IARC, Carcinogenicity

Information of Ingredients: Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS905 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 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.

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



### 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

#### **US** Information

All components in this product comply with order under TSCA.

#### EU Information

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

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.

- (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

Toxic Substances Control Act (USA) **TSCA** 

WHMIS Workplace Hazardous Materials Information System(Canada)

End of MSDS



## Chemical Product and Company Identification

**Product Name** Magenta Toner For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

#### Composition/Information on Ingredients Section 2.

Hazardous Components	OSHA PEL				
(Chemical Identity, Common Name/s)	SubpartZ	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
(CAS No. 13463-67-7) Titanium dioxide	15mg/m <sup>3</sup> (TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin (2 kinds)					75-85
Organic pigment					1-5

### Section 3. Hazards Identification

Most Important Hazards None Specific Hazards None

Other Information on Hazards:

Potential Health Effects:

Ingestion is not applicable route of entry for intended use. Ingestion 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. If irritation does occur, seek medical treatment.

Eye Contact Flush thoroughly with water and seek medical treatment if irritating.

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, C02 or Dry Chemical Extinguisher.

Fire Fighting Procedure Pay attention not to blow away toner powder. Drain water off around and decrease

the atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

Personal Precautions Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release.

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner not to blow away and 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<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³ OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

Protective Equipment

Respiratory Protection

Eye/Face Protection

Skin/Hand/Body Protection

None required under normal use.

None required under normal use.

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
OH N.A.

Melting Point 100-120<sup>o</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)>5.0mg/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 (mouse)Non-Sensitiser (Estimated from other products containing same materials.)

Mutagenicity Ames Test is Negative.

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, California Proposition 65, TRGS905 and

Information of Ingredients: (EC)No 1272/2008 AnnexVI Table3.2.

Carcinogenicity No carcinogen or potential carcinogen (except titanium dioxide), according to IARC,

Information of Ingredients: Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

California i Toposition 05, TNO0505 and (EO)NO 1272/2006 AnnexVI Table5.2.

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. 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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group.<sub>(1)</sub> But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



### 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

#### **US** Information

All components in this product comply with order under TSCA.

#### **EU Information**

Classification according to Regulation (EC) No 1272/2008 (CLP)

Not classified as hazardous mixture Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not Applicable

#### Canada Information

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

#### Section 16. Other Information

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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)



## Section 1. Chemical Product and Company Identification

Product Name Yellow Toner For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

## Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA PEL				
(Chemical Identity, Common Name/s)	SubpartZ	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
(CAS No. 13463-67-7) Titanium dioxide	15mg/m³(TWA)	10mg/m <sup>3</sup> (TWA)	Group2B	Not Listed	<1
(Non Hazardous Ingredients)					
Polyester resin (2 kinds)					75-85
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. If irritation does occur, seek medical treatment.

Eye Contact Do not rub eyes. Flush thoroughly with water and seek medical treatment if irritating.

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 Extinguisher.

Fire Fighting Procedure Pay attention not to blow away toner 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 toner release.

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner, 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 an dark place keeping

away from fire.

Keep away from children.

## Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³ OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

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 N.A.

Melting Point 100-120<sup>o</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  $(rat)LC_{50}(4hr)>5.0mg/l$  (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 (mouse)Non-Sensitiser (Estimated from other products containing same materials.)

Mutagenicity Ames Test is Negative.

No mutagen, according to MAK, TRGS905 and (EC) No 1272/2008 AnnexVI Table 3.2.

Reproductive Toxicity No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and

(EC)No 1272/2008 AnnexVI Table3.2.

Carcinogenicity No carcinogen or potential carcinogen (except titanium dioxide), according to IARC,

Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS905 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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group. But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



### 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

#### **US Information**

All components in this product comply with order under TSCA.

#### EU Information

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

#### 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>

American Conference of Governmental Industrial Hygienists **ACGIH** 

**OSHA** Occupational Safety and Health Administration

Time Weighted Average

TWA **IARC** International Agency for Research on Cancer **EPA** Environmental Protection Agency (USA) NTP National Toxicology Program

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

CA Safe Drinking Water and Toxic Enforcement Act of 1986. Proposition 65 Technische Regeln für Gefahrstoffe (Deutsche)

TRGS905 UN **United Nations** 

TSCA Toxic Substances Control Act (USA)

Workplace Hazardous Materials Information System(Canada) WHMIS

End of MSDS 



## Chemical Product and Company Identification

**Product Name** Black Developer For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

April 07, 2016 Date

### Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA PEL				
(Chemical Identity, Common Name/s)	SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4) Ferrite (Ferrite including manganese)	5mg/m <sup>3*</sup>	0.2mg/m <sup>3</sup> (TWA)**	Not Listed	Not Listed	85-95***
(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
*/Cailing/Mangapage compounds (so Ma))					

<sup>\*(</sup>Ceiling)(Manganese compounds (as Mn))

### 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.

May cause transient eye irritation. Eye Contact Skin Contact Unlikely to cause skin irritation.

<sup>\*\*(</sup>Manganese and inorganic compounds, as Mn)

<sup>\*\*\*(</sup>as Mn:15-20)



### 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, C0<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedures 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 Do not release into drains and surface water.

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<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 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(Estimated from other products containing same materials.)[Toner]

(rat)LD<sub>50</sub>>2,500mg/kg(Estimated from the data of constituent materials.)[Carrier]

 $Acute\ dermal\ toxicity \qquad \qquad (rat) LD_{50} > 2,000 mg/kg (Estimated\ from\ Acute\ oral\ toxicity\ for\ same\ product.) [Toner]$ 

(rat)LD<sub>50</sub>>2,000mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.0mg/l(Estimated from other products containing same materials.)[Toner]

Acute eye irritation (rabbit) Minimal irritant (Estimated from other products containing same materials.)[Toner]

Acute skin irritation (rabbit) Non-irritant(Estimated from other products containing same materials.) [Toner]

(rabbit) Non irritant (Estimated from the data of constituent materials.)[Carrier]

Skin sensitization (mouse)Non-Sensitizer(Estimated from other products containing same materials.) [Toner]

(guinea pig)Non-Sensitizer(Estimated from the data of constituent materials.) [Carrier]

Mutagenicity Ames Test is Negative. [Toner]

Ames Test is Negative. (Estimated from the data of constituent materials.)[Carrier]

Information of Ingredients

No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

Reproductive Toxicity

No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and

Information of Ingredients (EC)No 1272/2008 AnnexVI Table 3.2.

Carcinogenicity No carcinogen or potential carcinogen (except carbon black) according to IARC, Japan

Information of Ingredients Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California

Proposition 65, TRGS905 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. 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.<sub>(1)</sub>

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group. (1) But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



### 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

#### **US Information**

All components in this product comply with order under TSCA.

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

#### 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 under Deutsche Forschungsgemeinschaft

Proposition 65 CA Safe Drinking Water and Toxic Enforcement Act of 1986. TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

United Nations UN

**TSCA** Toxic Substances Control Act (USA)

Workplace Hazardous Materials Information System(Canada) WHMIS

### End of MSDS



## Section 1. Chemical Product and Company Identification

Product Name Cyan Developer For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

### Section 2. Composition/Information on Ingredients

Hazardous Components (Chemical Identity, Common Name/s)	OSHA PEL	ACGIH TLV	IARC	NTP	Woight <sup>0</sup> /
(Chemical identity, Common Name/s)	SubpartZ	ACGIN ILV	IARC	NIP	Weight%
(CAS No. 66402-68-4) Ferrite (Ferrite including manganese)	5mg/m <sup>3*</sup>	0.2mg/m <sup>3</sup> (TWA)**	Not Listed	Not Listed	85-95***
(Non Hazardous Ingredients)					
Polyester resin					5-10

<sup>\*(</sup>Ceiling)(Manganese compounds (as Mn))

### 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.

<sup>\*\*(</sup>Manganese and inorganic compounds, as Mn)

<sup>\*\*\*(</sup>as Mn:15-20)



Ingestion

## SAFETY DATA SHEET

#### 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 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, C0<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedures 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 Do not release into drains and surface water.

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 an dark place keeping

away from fire.

Keep away from children.

### Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³ OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

Protective Equipment

Respiratory Protection

Eye/Face Protection

Skin/Hand/Body Protection

None required under normal use.

None required under normal use.

None required under normal use.

Ventilation

None required under normal use.



### Section 9. Physical and Chemical Properties

**Appearance** 

Physical state Solid Form Fine powder

Color Cyan
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 3.5-5.0 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(Estimated from other products containing same materials.)[Toner]

(rat)LD<sub>50</sub>>2,500mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute dermal toxicity (rat)LD<sub>50</sub>>2,000mg/kg(Estimated from Acute oral toxicity for same product.)[Toner]

(rat)LD<sub>50</sub>>2,000mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.0mg/l(Estimated from other products containing same materials.)

(Estimated from other products containing same materials.)[Toner]

Acute eye irritation (rabbit) Minimal irritant(Estimated from other products containing same materials.) [Toner]

Acute skin irritation (rabbit) Non-irritant(Estimated from other products containing same materials.)[Toner]

(rabbit) Non irritant(Estimated from the data of constituent materials.) [Carrier]

Skin sensitization (mouse)Non-Sensitizer(Estimated from other products containing same materials.) [Toner]

(guinea pig)Non-Sensitizer(Estimated from the data of constituent materials.) [Carrier]

Mutagenicity Ames Test is Negative. [Toner]

Ames Test is Negative. (Estimated from the data of constituent materials.[Carrier]

No mutagen, according to MAK, TRGS905 and (EC)No 1272/20018 AnnexVI Table3.2.

Reproductive Toxicity

Information of Ingredients

Information of Ingredients No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and

(EC)No 1272/2008 AnnexVI Table 3.2.

Carcinogenicity

Information of Ingredients 
No carcinogen or potential carcinogen according to IARC, Japan

Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California

Proposition 65, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group. But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



### 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

#### US Information

All components in this product comply with order under TSCA.

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

#### 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.

- (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)
- ACGIH TLV (Threshold Limit Values)
- 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

Time Weighted Average

TWA IARC International Agency for Research on Cancer **EPA** Environmental Protection Agency (USA)

NTP National Toxicology Program

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

CA Safe Drinking Water and Toxic Enforcement Act of 1986. Proposition 65

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 Magenta Developer For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

### 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 (Ferrite including manganese)	5mg/m <sup>3*</sup>	0.2mg/m <sup>3</sup> (TWA)**	Not Listed	Not Listed	85-95***
(Non Hazardous Ingredients)					
Polyester resin					5-10

<sup>\*(</sup>Ceiling)(Manganese compounds (as Mn))

#### 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.

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.

<sup>\*\*(</sup>Manganese and inorganic compounds, as Mn)

<sup>\*\*\*(</sup>as Mn:15-20)



### 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, C0<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedures 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 Do not release into drains and surface water.

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 an dark place keeping

away from fire.

Keep away from children.

#### Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³ OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m³, Respirable fraction 5mg/m³

Protective Equipment

Respiratory Protection

Eye/Face Protection

Skin/Hand/Body Protection

None required under normal use.

None required under normal use.

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 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(Estimated from other products containing same materials.)[Toner]

(rat)LD<sub>50</sub>>2,500mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute dermal toxicity (rat)LD<sub>50</sub>>2,000mg/kg(Estimated from Acute oral toxicity for same product.)[Toner]

(rat)LD<sub>50</sub>>2,000mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.0mg/l(Estimated from other products containing same materials.)[Toner]

Acute eye irritation (rabbit) Minimal irritant(Estimated from other products containing same materials.) [Toner]

Acute skin irritation (rabbit) Non-irritant(Estimated from other products containing same materials.) [Toner]

(rabbit) Non irritant(Estimated from the data of constituent materials.) [Carrier]

Skin sensitization (mouse)Non-Sensitizer(Estimated from other products containing same materials.) [Toner]

(guinea pig)Non-Sensitizer(Estimated from the data of constituent materials.) [Carrier]

Mutagenicity Ames Test is Negative. [Toner]

Ames Test is Negative. (Estimated from the data of constituent materials.)[Carrier]

Information of Ingredients No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

Reproductive Toxicity

Information of Ingredients No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and

EU Directive(67/548/EEC).

Carcinogenicity

Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65,

TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4mg/m³) exposure group. (1) But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures. Other Information



### 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

#### **US Information**

All components in this product comply with order under TSCA.

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

#### 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)
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- (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

Time Weighted Average

TWA **IARC** International Agency for Research on Cancer EPA Environmental Protection Agency (USA) National Toxicology Program NTP

Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft MAK

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 Yellow Developer For TASKalfa 406ci

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Road

Mississauga, ON. L5T 1S8

Telephone Number (905) 670-4425

Date April 07, 2016

### Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA PEL	400011711	14.50	\ ITO	
(Chemical Identity, Common Name/s)	SubpartZ	ACGIH TLV	IARC	NTP	Weight%
(CAS No. 66402-68-4) Ferrite (Ferrite including manganese)	5mg/m <sup>3*</sup>	0.2mg/m <sup>3</sup> (TWA)**	Not Listed	Not Listed	85-95***
(Non Hazardous Ingredients)					
Polyester resin					5-10
			_	_	_

<sup>\*(</sup>Ceiling)(Manganese compounds (as Mn))

#### 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.

<sup>\*\*(</sup>Manganese and inorganic compounds, as Mn)

<sup>\*\*\*(</sup>as Mn:15-20)



### 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, C0<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedures 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 Do not release into drains and surface water.

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<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

Eye/Face Protection

Skin/Hand/Body Protection

Ventilation

None required under normal use.

None required under normal use.

None required under normal use.



#### Physical and Chemical Properties Section 9.

Appearance

Physical state

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.

3.5-5.0g/cm3 Density

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.)[Toner]

(rat)LD<sub>50</sub>>2,500mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute dermal toxicity (rat)LD<sub>50</sub>>2,000mg/kg(Estimated from Acute oral toxicity for same product.)[Toner]

(rat)LD<sub>50</sub>>2,000mg/kg(Estimated from the data of constituent materials.)[Carrier]

Acute inhalation toxicity (rat)LC<sub>50</sub>(4 hr)>5.0mg/I(Estimated from other products containing same materials.)[Toner]

Acute eye irritation (rabbit) Minimal irritant(Estimated from other products containing same materials.)[Toner]

Acute skin irritation (rabbit) Non-irritant(Estimated from other products containing same materials.)[Toner]

(rabbit) Non-irritant(Estimated from the data of constituent materials.)[Carrier]

Skin sensitization (mouse)Non-Sensitizer(Estimated from other products containing same materials.)[Toner]

(guinea pig)Non-Sensitizer(Estimated from the data of constituent materials.)[Carrier]

Ames Test is Negative. [Toner] Mutagenicity

Ames Test is Negative. (Estimated from the data of constituent materials.) [Carrier] 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, California Proposition 65, TRGS905 and

EU Directive(67/548/EEC).

Carcinogenicity

Information of Ingredients No carcinogen or potential carcinogen according to IARC, Japan Association on

Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65,

TRGS905 and (EC)No 1272/2008 AnnexVI Table 3.2.

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



### 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

#### **US** Information

All components in this product comply with order under TSCA.

#### EU Information

Classification according to Regulation (EC) No 1272/2008 (CLP) Labelling according to Regulation (EC) No 1272/2008 (CLP).

Not classified as hazardous mixture

Not Applicable

#### Canada Information

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

#### Section 16. Other Information

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