

## Section 1. Chemical Product and Company Identification

Product Name Black Toner For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004 Telephone Number (973)-808-8444

Date June 05, 2015

## Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA				
(Chemical Identity, Common Name/s)	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/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					70-80
Styrene acrylate copolymer					1-5

#### Section 3. Hazards Identification

Most Important Hazards None Specific Hazards None

Other Information on Hazards: Potential Health Effects

Ingestion Ingestion is not applicable route of entry for intended use.

Inhalation Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in

inhalation of excessive dusts.

Eye Contact May cause transient eye irritation.

Skin Contact Unlikely to cause skin irritation.

#### Section 4. First Aid Measures

Inhalation Remove from exposure to fresh air and gargle with plenty of water. Seek medical treatment in case of such a

symptom as coughing.

Skin Contact Wash with soap and water.

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

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



# Section 5. Fire Fighting Measures

Extinguishing Media Water (Sprinkle with water), Foam, Powder, CO<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedure Do not blow away toner powder. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

## Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner, do not blow away 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<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

Hand/Skin/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 Not applicable
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 Table3.2.

Reproductive Toxicity

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

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

Carcinogenicity

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

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

Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated carbon black and titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity. (4) The evaluation of carbon black is based upon the development of

lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung.

The studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-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. (1) But no pulmonary change was reported in the lowest (1mg/m³) 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



# 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.

(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) (2)OSHA PEL (Permissible Exposure Limits) (3)

IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.93 (4) (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

MAK

**ACGIH** American Conference of Governmental Industrial Hygienists

2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physica

Agents and Biological Exposure Indices)

OSHA Occupational Safety and Health Administration(29 CFR Part1910 Subpart Z)

TWA Time Weighted Average **IARC** 

International Agency for Research on Cancer

(IARC Monographs on the Evaluations of Carcinogenic Risks to Humans)

Environmental Protection Agency (USA)(Integrated Risk Information System)(USA) **EPA** 

National Toxicology Program(Report on Carcinogens)(USA) NTP

Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft (List of MAK and BAT Values 2009) (DFG: Deutsche Forschungsgemeinscraft)

California, Safe Drinking Water and Toxic Enforcement Act of 1986

Proposition 65 TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

(EC)No.1272/2008 AnnexVI Table3.2: Regulation(EC) No 1272/2008 on classification,

labeling and packaging of substances and mixtures (CLP) AnnexVI Table3.2

UN United Nations

**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 Toner For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

## Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA				
(Chemical Identity, Common Name/s)	SubpartZ PEL	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/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.

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

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

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## Section 5. Fire Fighting Measures

Extinguishing Media Water (Sprinkle with water), Foam, Powder, CO<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedure Do not blow away toner powder. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner do not blow away 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<sub>(2)</sub>-TWA Inhalable fraction 10mg/m<sup>3</sup>, Respirable fraction 3mg/m<sup>3</sup>

OSHA PEL<sub>(3)</sub>-TWA Total dust 15mg/m<sup>3</sup>, Respirable fraction 5mg/m<sup>3</sup>

Protective Equipment

Respiratory Protection None required under normal use.

Eye/Face Protection None required under normal use.

Hand/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 Not applicable
Melting Point 100-1200 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)>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 Table3.2.

Reproductive Toxicity

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

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

Carcinogenicity

Information of Ingredients: No carcinogen or potential carcinogen (except titanium dioxide) according to

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

Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity. (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.<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 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



# 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.

#### Reference

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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

2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physica

Agents and Biological Exposure Indices)

OSHA Occupational Safety and Health Administration(29 CFR Part1910 Subpart Z)

TWA Time Weighted Average

IARC International Agency for Research on Cancer

(IARC Monographs on the Evaluations of Carcinogenic Risks to Humans)

EPA Environmental Protection Agency (USA)(Integrated Risk Information System)(USA)

NTP National Toxicology Program(Report on Carcinogens)(USA)

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

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Proposition 65 California, Safe Drinking Water and Toxic Enforcement Act of 1986

TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

(EC)No.1272/2008 AnnexVI Table3.2: Regulation(EC) No 1272/2008 on classification,

labeling and packaging of substances and mixtures (CLP) AnnexVI Table3.2

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 Magenta Toner For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

## Section 2. Composition/Information on Ingredients

Hazardous Components	OCLIA				
(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
(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.

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

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

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# Section 5. Fire Fighting Measures

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 Do not release into drains and surface water.

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<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.

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 Not applicable
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)>5.0mg/l (Estimated from other products containing same materials.)

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#### Chronic effects:

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Other Information None

## Section 12. Ecological Information

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## Section 13. Disposal Considerations

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### Section 14. Transport Information



# 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

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for Occupational Exposure to Titanium Dioxide DRAFT" ISO 11014-1 Safety data sheet for chemical products

Abbreviation

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2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physica

Agents and Biological Exposure Indices)

OSHA Occupational Safety and Health Administration(29 CFR Part1910 Subpart Z)

Time Weighted Average TWA

International Agency for Research on Cancer IARC

(IARC Monographs on the Evaluations of Carcinogenic Risks to Humans)

Environmental Protection Agency (USA)(Integrated Risk Information System)(USA) **EPA** 

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labeling and packaging of substances and mixtures (CLP) AnnexVI Table3.2

UN United Nations

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

Workplace Hazardous Materials Information System(Canada)

End of MSDS 



## Section 1. Chemical Product and Company Identification

Product Name Yellow Toner For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

## Section 2. Composition/Information on Ingredients

Hazardous Components	OSHA				
(Chemical Identity, Common Name/s)	SubpartZ PEL	ACGIH TLV	IARC	NTP	Weight %
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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.

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

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

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Extinguishing Media Water (Sprinkle with water), Foam, Powder, CO<sub>2</sub> or Dry Chemical Extinguisher.

Fire Fighting Procedure Do not blow away toner powder. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

### Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released toner do not blow away 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<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

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 Not applicable
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  $(rat)LD_{50}>2,000$ mg/kg (Estimated from Acute oral toxicity for same product.)

Acute inhalation toxicity (rat)LC<sub>50</sub>(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 Table3.2.

Reproductive Toxicity

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

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

Carcinogenicity

Information of Ingredients: No carcinogen or potential carcinogen (except titanium dioxide) according to

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

Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity. (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.<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 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



# 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.

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

2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physica

Agents and Biological Exposure Indices)

OSHA Occupational Safety and Health Administration(29 CFR Part1910 Subpart Z)

TWA Time Weighted Average

IARC International Agency for Research on Cancer

(IARC Monographs on the Evaluations of Carcinogenic Risks to Humans)

EPA Environmental Protection Agency (USA)(Integrated Risk Information System)(USA)

NTP National Toxicology Program(Report on Carcinogens)(USA)

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft (List of MAK and BAT Vajues 2009)(DFG: Deutsche Forschungsgemeinschaft)

Proposition 65 California, Safe Drinking Water and Toxic Enforcement Act of 1986

TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

(EC)No.1272/2008 AnnexVI Table3.2: Regulation(EC) No 1272/2008 on classification,

labeling and packaging of substances and mixtures (CLP) AnnexVI Table3.2

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 Black Developer For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

## 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> (Ceiling)*	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

<sup>\*(</sup>Manganese compounds(asMn))

#### Section 3. Hazards Identification

Most Important Hazards None
Specific Hazards None

Other Information on Hazards: Potential Health Effects:

Ingestion Ingestion is not applicable route of entry for intended use.

Inhalation Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended,

does not result in inhalation of excessive dusts.

Eye Contact May cause transient eye irritation.

Skin Contact Unlikely to cause skin irritation.

#### Section 4. First Aid Measures

Inhalation Remove from exposure to fresh air and gargle with plenty of water. Seek medical treatment in case

of such a symptom as coughing.

Skin Contact Wash with soap and water.

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

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

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

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



# 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 developer 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 developer release.

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released developer 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 the developer unit tightly closed.

Keep away from children.

Storage Store in a cool, dry and dark place keeping away from fire. Keep the developer unit

tightly closed. Keep away from children.

## Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/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

Hand/Skin/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 Not applicable
Melting Point No data available

Explosion Properties Dust explosion is improbable under normal use. Experimental explosiveness of

toner is classified into the same rank such kind of powder as flour, dry milk and

resin powder according to the pressure rising speed.

Density 3.5-5.0g/cm<sup>3</sup>

Solubility Almost insoluble in water.

## Section 10. Stability and Reactivity

Stability/Reactivity Stable under normal use.

Hazardous Decomposition Products None



## Section 11. Toxicological Information

Acute oral toxicity (rat)LD<sub>50</sub>>2,000mg/kg(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>(4hr)>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-Sensitiser(Estimated from other products containing same materials.)[Toner]

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

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

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

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

Carcinogenicity

Information of Ingredients No carcinogen or potential carcinogen (except carbon black) according to IARC, Japan

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

Proposition 65, TRGS905 and ECNo 1272/2008 AnnexVI Table3.2.

The IARC reevaluated carbon black as a Group 2B carcinogen (possible carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity.(4) The evaluation of carbon black is based upon the development of lung tumors in rat receiving

chronic inhalation exposures to free carbon black at level that induce particle overload of the lung.

The studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-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. But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures.

Other Information None

#### Section 12. Ecological Information

No data available.

## Section 13. Disposal Considerations

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



## Section 14. Transport Information

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

## Section 15. Regulatory Information

#### **EU** Information

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

Symbol and Indication Not required
R-Phrase Not required
S-Phrase Not required
Special Markings Not required

Hazardous ingredients for labeling

#### **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.

None

## 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.
- \*ISO 11014-1 Safety data sheet for chemical products.

#### <Abbreviation>

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety and Health Administration

TWA Time Weighted Average

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

NTP National Toxicology Program

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

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

TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

UN United Nations

TSCA Toxic Substances Control Act (USA)

WHMIS Workplace Hazardous Materials Information System(Canada)



# Section 1. Chemical Product and Company Identification

Product Name Cyan Developer For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

### 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/m³(Ceiling)*	0.2mg/m <sup>3</sup> (TWA)**	Not Listed	Not Listed	85-95***
(Non Hazardous Ingredients)					
Polyester resin					5-10
			_		

<sup>\*(</sup>Manganese compounds(asMn))

#### Section 3. Hazards Identification

Most Important Hazards None
Specific Hazards None

Other Information on Hazards: Potential Health Effects:

Ingestion Ingestion is not applicable route of entry for intended use.

Inhalation Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended,

does not result in inhalation of excessive dusts.

Eye Contact May cause transient eye irritation.

Skin Contact Unlikely to cause skin irritation.

### Section 4. First Aid Measures

Inhalation Remove from exposure to fresh air and gargle with plenty of water. Seek medical treatment in case

of such a symptom as coughing.

Skin Contact Wash with soap and water.

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

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

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

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



# 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 developer. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released developer 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 the developer unit tightly closed.

Keep away from children.

Storage Store in a cool, dry and dark place keeping away from fire. Keep the developer unit

tightly closed. Keep away from children.

## Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/m<sup>3</sup>, Respirable fraction 3mg/m<sup>3</sup>

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

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 Not applicable
Melting Point No data available

Explosion Properties Dust explosion is improbable under normal use. Experimental explosiveness of

toner is classified into the same rank such kind of powder as flour, dry milk and

resin powder according to the pressure rising speed.

Density 3.5-5.0g/m<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>(4hr)>5.0mg/I[Estimated from other products containing the 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-Sensitiser(Estimated from other products containing same materials.)[Toner]

(guinea pig)Non-Sensitiser(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 1272-2008 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 Table3.2.

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.<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 None

## Section 12. Ecological Information

No data available

## Section 13. Disposal Considerations

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

## Section 14. Transport Information



# 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.

#### <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)

\*ISO 11014-1 Safety data sheet for chemical products.

#### <Abbreviation>

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety and Health Administration

TWA Time Weighted Average

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

NTP National Toxicology Program

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

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

TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

UN United Nations

TSCA Toxic Substances Control Act (USA)

WHMIS Workplace Hazardous Materials Information System(Canada)



### Section 1. Chemical Product and Company Identification

Product Name Magenta Developer For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

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

<sup>\*(</sup>Manganese compounds(asMn))

#### Section 3. Hazards Identification

#### Most Important Hazards

Specific Hazards

Other Information on Hazards: Potential Health Effects:

Ingestion Ingestion is not applicable route of entry for intended use.

Inhalation Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended,

does not result in inhalation of excessive dusts.

Eye Contact May cause transient eye irritation.

Skin Contact Unlikely to cause skin irritation.

## Section 4. First Aid Measures

Inhalation Remove from exposure to fresh air and gargle with plenty of water. Seek medical treatment in case

of such a symptom as coughing.

Skin Contact Wash with soap and water.

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

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

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

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



## 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 developer. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released developer 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 the developer unit tightly closed.

Keep away from children.

Storage Store in a cool, dry and dark place keeping away from fire. Keep the developer unit

tightly closed. Keep away from children.

## Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/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

Hand/Skin/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 Not applicable
Melting Point Not data available

Explosion Properties Dust explosion is improbable under normal use. Experimental explosiveness of

toner is classified into the same rank such kind of powder as flour, dry milk and

resin powder according to the pressure rising speed.

Density 3.5-5.0g/cm<sup>3</sup>

Solubility Almost insoluble in water.



## Section 10. Stability and Reactivity

Stability/Reactivity Stable under normal use.

Hazardous Decomposition Products None

#### Section 11. Toxicological Information

Acute oral toxicity (rat)LD<sub>50</sub>>2,000mg/kg(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>(4hr)>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-Sensitiser(Estimated from other products containing same materials.)[Toner]

(guinea pig)Non-Sensitiser(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

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

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.<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 None

## Section 12. Ecological Information

No data available

## Section 13. Disposal Considerations

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

#### Section 14. Transport Information



# 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.

#### <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)

#### <Abbreviation>

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety and Health Administration

TWA Time Weighted Average

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

NTP National Toxicology Program

MAK Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft

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

TRGS905 Technische Regeln für Gefahrstoffe (Deutsche)

UN United Nations

TSCA Toxic Substances Control Act (USA)

WHMIS Workplace Hazardous Materials Information System(Canada)

<sup>\*</sup>ISO 11014-1 Safety data sheet for chemical products.



### Section 1. Chemical Product and Company Identification

Product Name Yellow Developer For ECOSYS P6035cdn

Manufacturer KYOCERA Document Solutions Inc.

Address KYOCERA Document Solutions America, Inc.

225 Sand Road

Fairfield, NJ 07004

Telephone Number (973)-808-8444

Date June 05, 2015

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

<sup>\*(</sup>Manganese compounds(asMn))

#### Section 3. Hazards Identification

Most Important Hazards

Specific Hazards

Other Information on Hazards: Potential Health Effects:

Ingestion Ingestion is not applicable route of entry for intended use.

Inhalation Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended,

does not result in inhalation of excessive dusts.

Eye Contact May cause transient eye irritation.

Skin Contact Unlikely to cause skin irritation.

### Section 4. First Aid Measures

Inhalation Remove from exposure to fresh air and gargle with plenty of water. Seek medical treatment in case

of such a symptom as coughing.

Skin Contact Wash with soap and water.

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

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

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

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



# Section 5. Fire Fighting Measures

Extinguishing Media Water (Sprinkle with water), Foam, Powder, C02 or Dry Chemical Extinguisher.

Fire Fighting Procedure Do not blow away developer. Drain water off around and decrease the

atmosphere temperature to extinguish the fire.

#### Section 6. Accidental Release Measures

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

Environmental Precautions Do not release into drains and surface water.

Method for Cleaning Up Gather the released developer 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 the developer unit tightly closed.

Keep away from children.

Storage Store in a cool, dry and dark place keeping away from fire. Keep the developer unit

tightly closed. Keep away from children.

## Section 8. Exposure Controls/Personal Protection

Control Parameters<Reference Data>

ACGIH TLV<sub>(2)</sub>-TWA Inhalable fraction 10mg/m³, Respirable fraction 3mg/m³

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

Personal Protection Equipment(s)

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 Not applicable
Melting Point No data available

Explosion Properties Dust explosion is improbable under normal use. Experimental explosiveness of

toner is classified into the same rank such kind of powder as flour, dry milk and

resin powder according to the pressure rising speed.

Density 3.5-5.0g/cm<sup>3</sup>

Solubility Almost insoluble in water.



## Section 10. Stability and Reactivity

Stability/Reactivity Stable under normal use.

Hazardous Decomposition Products None

## Section 11. Toxicological Information

Acute oral toxicity (rat)LD<sub>50</sub>>2,000mg/kg(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>(4hr)>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-Sensitiser(Estimated from other products containing same materials.)[Toner]

(guinea pig)Non-Sensitiser(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 1272/2009 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 Table3.2.

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,

(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.<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 None

## Section 12. Ecological Information

No data available

#### Section 13. Disposal Considerations

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