

RICOH

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Print Cartridge Black Type MP C3300/C3333/LD533C
Product Number: 841276
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Americas Corporation
5 Dedrick Place
West Caldwell, NJ 07006 USA
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

Afficio MP C2800, MP C3300, Savin C2828, C3333, Gestetner MP C2800, MP C3300, Lanier LD528C, LD533C.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	50.0 - 90.0 %	Confidential
WAX	< 10.0 %	Confidential
CARBON BLACK	< 10.0 %	1333-86-4
SILICA	< 10.0 %	7631-86-9
TITAN OXIDE	0.1 - 1.0 %	13463-67-7

EXPOSURE GUIDELINES:

Carbon Black

OSHA PEL: 3.5 mg/m³
ACGIH TWA: 3.5 mg/m³

Silica

OSHA PEL: 15 mg/m³
ACGIH TWA: 10 mg/m³

Titan Oxide

OSHA TWA: 15 mg/m³
ACGIH TWA: 10 mg/m³

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

ACUTE EYE EFFECTS:

May cause slight transient irritation.

ACUTE SKIN EFFECTS:

May be non-irritant.

ACUTE INHALATION EFFECTS:

Exposure to excessive amount of dust may cause physical irritation to respiratory tract.

ACUTE INGESTION EFFECTS:

Low acute toxicity in animal experiment.

CARCINOGENICITY:

Carbon black and titanium dioxide contained in this product are classified to Group 2B of IARC as the result of inhalation test in use of rat. But oral/skin test does not show carcinogenicity. The toner containing carbon black did not show carcinogenicity in chronic inhalation exposure test in use of rat. In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone showed lung tumor. Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use. Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Not applicable.

CHRONIC EFFECTS:

Slight pulmonary fibrosis has been reported in rats upon chronic inhalation exposure to a toner at 4mg/m³ every day for 2 years. No pulmonary change was found at 1mg/m³. These findings show that exposure to excessive amounts of powder may cause damage to lungs. However, normal use and handling of this product as intended, does not result in inhalation of excessive amounts of powder.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush with a large amount of water until particles are removed. Seek medical advice.

SKIN CONTACT FIRST AID:

Wash thoroughly with soapy water.

INHALATION FIRST AID:

Remove from exposure into fresh air and rinse mouth with water. Seek medical advice.

INGESTION FIRST AID:

Drink several glasses of water to dilute ingested toner. Seek medical advice.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

BURNING RATE:

(mm/sec): 0.223 or below.

FIRE FIGHTING INSTRUCTIONS:

No special fire protecting method is required. Sprinkling or fire extinguisher can be used.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction).

MISCELLANEOUS:

Do not breathe in dust. Do not flush into sewers and watercourses.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Do not handle in areas where there is wind or draught, this may cause dust to get into eyes. Avoid breathing in dust.

STORAGE REQUIREMENTS:

Keep out of reach of children. Store in dry, well-ventilated area, to maintain quality the temperature should not exceed 35 degrees centigrade for a long time. Avoid direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None required with intended use.

RESPIRATORY PROTECTION:

None required in normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid powder
COLOR:	Black
ODOR:	slight plastic odor
BOILING POINT:	Not applicable C
VAPOR PRESSURE:	Not applicable psia
VAPOR DENSITY:	Not applicable (Air = 1)
SOLUBILITY IN WATER:	Insoluble
MELTING/FREEZING POINT:	(Softening point): Approx. 110 C
PH:	Not applicable
VISCOSITY:	Not applicable
EVAPORATION RATE:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

(LD50): >5000mg/kg.

CARCINOGENICITY:

Carbon black and titanium dioxide contained in this product are classified to Group 2B of IARC as the result of inhalation test in use of rat. But oral/skin test does not show carcinogenicity. The toner containing carbon black did not show carcinogenicity in chronic inhalation exposure test in use of rat. In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone showed lung tumor. Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use. Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DEGRADATION:

Not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

Do not throw the toner cartridge or toner into an open flame. Hot toner may scatter and cause burns or other damage.

14. TRANSPORT INFORMATION

PRODUCT LABEL: Print Cartridge Black Type MP C3300/C3333/LD533C

MISCELLANEOUS:

Avoid direct sunlight in quality.

15. REGULATORY INFORMATION

Canadian Disclosure List
Silica (7631-86-9)

16. OTHER INFORMATION

HMIS Rating:

Health - 1
Flammability - 1
Reactivity - 0

APPROVED BY: David Huelbig
TITLE: Safety Engineer
APPROVAL DATE: November 25, 2008
SUPERCEDES DATE: New
RTN NUMBER: 00003667 (Official Copy)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Ricoh Americas Corporation. The data on this sheet are related only to the specific material designated herein. Ricoh Americas Corporation assumes no legal responsibility for use or reliance upon these data.

END OF MSDS

RICOH

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Print Cartridge Yellow Type MP C3300/C3333/LD533C
Product Number: 841277
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Americas Corporation
5 Dedrick Place
West Caldwell, NJ 07006 USA
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

Aficio MP C2800, MP C3300, Gestetner MP C2800, MP C3300, Savin C2828, C3333, Lanier LD528C, LD533C.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	50.0 - 90.0 %	Confidential
WAX	< 10.0 %	Confidential
ORGANIC PIGMENT	< 10.0 %	76199-85-4
SILICA	< 10.0 %	7631-86-9
TITAN OXIDE	0.1 - 1.0 %	13463-67-7

EXPOSURE GUIDELINES:

Silica

OSHA PEL: 15 mg/m³
ACGIH TWA: 10 mg/m³

Titan Oxide

OSHA TWA: 15 mg/m³
ACGIH TWA: 10 mg/m³

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

ACUTE EYE EFFECTS:

May cause slight transient irritation.

ACUTE SKIN EFFECTS:

May be non-irritant.

ACUTE INHALATION EFFECTS:

Exposure to excessive amount of dust may cause physical irritation to respiratory tract.

ACUTE INGESTION EFFECTS:

Low acute toxicity in animal experiment.

CARCINOGENICITY:

Titanium dioxide contained in this product is classified to Group 2B of IARC as the result of inhalation test in use of rat. But oral/skin test does not show carcinogenicity. In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone showed lung tumor. Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use. Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Not applicable.

CHRONIC EFFECTS:

Slight pulmonary fibrosis has been reported in rats upon chronic inhalation exposure to a toner at 4mg/m³ every day for 2 years. No pulmonary change was found at 1mg/m³. These findings show that exposure to excessive amounts of powder may cause damage to lungs. However, normal use and handling of this product, as intended, does not result in inhalation of excessive amounts of powder.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush with a large amount of water until particles are removed. Seek medical advice.

SKIN CONTACT FIRST AID:

Wash thoroughly with soapy water.

INHALATION FIRST AID:

Remove from exposure into fresh air and rinse mouth with water. Seek medical advice.

INGESTION FIRST AID:

Drink several glasses of water to dilute ingested toner. Seek medical advice.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

BURNING RATE:

(mm/sec): 0.223 or below.

FIRE FIGHTING INSTRUCTIONS:

No special fire protecting method is required. Sprinkling or fire extinguishers can be used.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction).

MISCELLANEOUS:

Do not breathe in dust. Do not flush into sewers or watercourses.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Do not handle in areas where there is wind or draught, this may cause dust to get into eyes. Avoid breathing in dust.

STORAGE REQUIREMENTS:

Keep out of reach of children. Store in dry, well-ventilated area, to maintain quality the temperature should not exceed 35 degrees centigrade for a long time. Avoid direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None required with intended use.

RESPIRATORY PROTECTION:

None required in normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid powder
COLOR:	Yellow
ODOR:	slight plastic odor
BOILING POINT:	Not applicable C
VAPOR PRESSURE:	Not applicable psia
VAPOR DENSITY:	Not applicable (Air = 1)
SOLUBILITY IN WATER:	slightly soluble
MELTING/FREEZING POINT:	(Softening point) Approx. 110 C
PH:	Not applicable
VISCOSITY:	Not applicable
EVAPORATION RATE:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

(LD50): >5000mg/kg.

CARCINOGENICITY:

In 2008 the IARC reevaluated Titanium dioxide as a Group 2B carcinogen for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to Titanium dioxide at levels that induce particle overload of the lung. Use of this product, as intended, does not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DEGRADATION:

Not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

14. TRANSPORT INFORMATION

PRODUCT LABEL: Print Cartridge Yellow Type MP C3300/C3333/LD533C

MISCELLANEOUS:

Avoid direct sunlight in quality.

15. REGULATORY INFORMATION

Canadian Disclosure List
Silica (7631-86-9)

16. OTHER INFORMATION

HMIS Rating:

Health - 1

Flammability - 1
Reactivity - 0

APPROVED BY: David Huelbig
TITLE: Safety Engineer
APPROVAL DATE: November 26, 2008
SUPERCEDES DATE: New
RTN NUMBER: 00003668 (Official Copy)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Ricoh Americas Corporation. The data on this sheet are related only to the specific material designated herein. Ricoh Americas Corporation assumes no legal responsibility for use or reliance upon these data.

END OF MSDS

RICOH

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Print Cartridge Magenta Type MP C3300/C3333/LD533C
Product Number: 841278
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Americas Corporation
5 Dedrick Place
West Caldwell, NJ 07006 USA
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

Aficio MP C2800, MP C3300, Gestetner MP C2800, MP C3300, Savin C2828, C3333, Lanier LD528C, LD533C.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	50.0 - 90.0 %	Confidential
WAX	< 10.0 %	Confidential
ORGANIC PIGMENT	< 10.0 %	67990-05-0
SILICA	< 10.0 %	7631-86-9
TITAN OXIDE	0.1 - 1.0 %	13463-67-7

EXPOSURE GUIDELINES:

Silica

OSHA PEL: 15 mg/m³
ACGIH TWA: 10 mg/m³

Titan Oxide

OSHA TWA: 15 mg/m³
ACGIH TWA: 10 mg/m³

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

ACUTE EYE EFFECTS:

May cause slight transient irritation.

ACUTE SKIN EFFECTS:

May be non-irritant.

ACUTE INHALATION EFFECTS:

Exposure to excessive amount of dust may cause physical irritation to respiratory tract.

ACUTE INGESTION EFFECTS:

Low acute toxicity in animal experiment.

CARCINOGENICITY:

Titanium dioxide contained in this product is classified to Group 2B of IARC as the result of inhalation test in use of rat. But oral/skin test does not show carcinogenicity. In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone showed lung tumor. Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use. Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Not applicable.

CHRONIC EFFECTS:

Slight pulmonary fibrosis has been reported in rats upon chronic inhalation exposure to a toner at 4mg/m³ every day for 2 years. No pulmonary change was found at 1mg/m³. These findings show that exposure to excessive amounts of powder may cause damage to lungs. However, normal use and handling of this product as intended, does not result in inhalation of excessive amounts of powder.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush with a large amount of water until particles are removed. Seek medical advice.

SKIN CONTACT FIRST AID:

Wash thoroughly with soapy water.

INHALATION FIRST AID:

Remove from exposure into fresh air and rinse mouth with water. Seek medical advice.

INGESTION FIRST AID:

Drink several glasses of water to dilute ingested toner. Seek medical advice.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

BURNING RATE:

(mm/sec): 0.223 or below.

FIRE FIGHTING INSTRUCTIONS:

No special fire protecting method is required. Sprinkling or fire extinguishers can be used.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction).

MISCELLANEOUS:

Do not breathe in dust. Do not flush into sewers and watercourses.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Do not handle in areas where there is wind or draught, this may cause dust to get into eyes. Avoid breathing in dust.

STORAGE REQUIREMENTS:

Keep out of reach of children. Store in dry, well-ventilated area, to maintain quality the temperature should not exceed 35 degrees centigrade for a long time. Avoid direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None required with intended use.

RESPIRATORY PROTECTION:

None required in normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid powder
COLOR:	Magenta
ODOR:	slight plastic odor
BOILING POINT:	Not applicable C
VAPOR PRESSURE:	Not applicable psia
VAPOR DENSITY:	Not applicable (Air = 1)
SOLUBILITY IN WATER:	Insoluble
MELTING/FREEZING POINT:	(Softening point) Approx. 110 C
PH:	Not applicable
% VOLATILES:	- %
VISCOSITY:	Not applicable
EVAPORATION RATE:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

(LD50): >5000mg/kg.

CARCINOGENICITY:

In 2008 the IARC reevaluated Titanium dioxide as a Group 2B carcinogen for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to Titanium dioxide at levels that induce particle overload of the lung. Use of this product, as intended, does not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DEGRADATION:

Not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

Do not throw the toner cartridge or toner into an open flame. Hot toner may scatter and cause burns or other damage.

14. TRANSPORT INFORMATION

PRODUCT LABEL: Print Cartridge Magenta Type MP C3300/C3333/LD533C

MISCELLANEOUS:

Avoid direct sunlight in quality.

15. REGULATORY INFORMATION

Canadian Disclosure List

Silica (7631-86-9)

16. OTHER INFORMATION

HMIS Rating:

Health - 1
Flammability - 1
Reactivity - 0

APPROVED BY: David Huelbig
TITLE: Safety Engineer
APPROVAL DATE: November 26, 2008
SUPERCEDES DATE: New
RTN NUMBER: 00003669 (Official Copy)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Ricoh Americas Corporation. The data on this sheet are related only to the specific material designated herein. Ricoh Americas Corporation assumes no legal responsibility for use or reliance upon these data.

END OF MSDS

RICOH

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Print Cartridge Cyan Type MP C3300/C3333/LD533C
Product Number: 841279
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Americas Corporation
5 Dedrick Place
West Caldwell, NJ 07006 USA
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

Aficio MP C2800, MP C3300, Gestetner MP C2800, MP C3300, Savin C2828, C3333, Lanier LD528C, LD533C.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYESTER RESIN	50.0 - 90.0 %	Confidential
WAX	< 10.0 %	Confidential
ORGANIC PIGMENT	< 10.0 %	147-14-8
SILICA	< 10.0 %	7631-86-9
TITAN OXIDE	0.1 - 1.0 %	13463-67-7

EXPOSURE GUIDELINES:

Silica

OSHA PEL: 15 mg/m³
ACGIH TWA: 10 mg/m³

Titan Oxide

OSHA TWA: 15 mg/m³
ACGIH TWA: 10 mg/m³

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

ACUTE EYE EFFECTS:

May cause slight transient irritation.

ACUTE SKIN EFFECTS:

May be non-irritant.

ACUTE INHALATION EFFECTS:

Exposure to excessive amount of dust may cause physical irritation to respiratory tract.

ACUTE INGESTION EFFECTS:

Low acute toxicity in animal experiment.

CARCINOGENICITY:

Titanium dioxide contained in this product is classified to Group 2B of IARC as the result of inhalation test in use of rat. But oral/skin test does not show carcinogenicity. In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone show lung tumor. Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use. Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Not applicable.

CHRONIC EFFECTS:

Slight pulmonary fibrosis has been reported in rats upon chronic inhalation exposure to a toner at 4mg/m³ every day for 2 years. No pulmonary change was found at 1mg/m³. These findings show that exposure to excessive amounts of powder may cause damage to lungs. However, normal use and handling of this product as intended, does not result in inhalation of excessive amounts of powder.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush with a large amount of water until particles are removed. Seek medical advice.

SKIN CONTACT FIRST AID:

Wash thoroughly with soapy water.

INHALATION FIRST AID:

Remove from exposure into fresh air and rinse mouth with water. Seek medical advice.

INGESTION FIRST AID:

Drink several glasses of water to dilute ingested toner. Seek medical advice.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

BURNING RATE:

(mm/sec): 0.223 or below.

HMIS Rating:

Health - 1

Flammability - 1

Reactivity - 0

FIRE FIGHTING INSTRUCTIONS:

No special fire protecting method is required. Sprinkling or fire extinguisher can be used.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction).

MISCELLANEOUS:

Keep product out of sewers and watercourses. Minimize inhalation of dust.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Do not handle in areas where there is wind or draught, this may cause dust to get into eyes. Avoid breathing in dust.

STORAGE REQUIREMENTS:

Keep out of reach of children. Store in dry, well-ventilated area, to maintain quality the temperature should not exceed 35 degrees centigrade for a long time. Avoid direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None required with intended use.

RESPIRATORY PROTECTION:

None required in normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid powder
COLOR:	Cyan
ODOR:	slight plastic odor
BOILING POINT:	Not applicable C
VAPOR PRESSURE:	Not applicable psia
VAPOR DENSITY:	Not applicable (Air = 1)
SOLUBILITY IN WATER:	Insoluble
MELTING/FREEZING POINT:	(Softening point): Approx. 110 C
PH:	Not applicable
VISCOSITY:	Not applicable
EVAPORATION RATE:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

(LD50): >5000mg/kg.

CARCINOGENICITY:

In 2008 the IARC reevaluated Titanium dioxide as a Group 2B carcinogen for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to Titanium dioxide at levels that induce particle overload of the lung. Use of this product, as intended, does not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DEGRADATION:

Not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

Do not throw the toner cartridge or toner into an open flame. Hot toner may scatter and cause burns or other damage.

14. TRANSPORT INFORMATION

PRODUCT LABEL: Print Cartridge Cyan Type MP C3300/C3333/LD533C

MISCELLANEOUS:

Avoid direct sunlight in quality.

15. REGULATORY INFORMATION

Canadian Disclosure List

Silica (7631-86-9)

16. OTHER INFORMATION

HMIS Rating:

Health - 1
Flammability - 1
Reactivity - 0

APPROVED BY: David Huelbig
TITLE: Safety Engineer
APPROVAL DATE: December 1, 2008
SUPERCEDES DATE: New
RTN NUMBER: 00003670 (Official Copy)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Ricoh Americas Corporation. The data on this sheet are related only to the specific material designated herein. Ricoh Americas Corporation assumes no legal responsibility for use or reliance upon these data.

END OF MSDS
