

INFOTEC

HEALTH AND SAFETY DATA SHEETS

Photocopier: 5151Z AS 51822

Material Safety Data Sheet

RICOH

Data issued : July.23.1996

1. Identification of the substance/preparation and of the company/undertaking

1.1. Product name : OPC for FT4015

1.2. Company name : Ricoh Company, LTD.

Address : 16-1 Honda-machi, Numazu-shi, Shizuoka-ken, 410, Japan

Telephone number for information : 0559-21-2251, Japan

Emergency telephone number : Ditto

2. Composition/information on ingredients

2.1. Ingredients and their concentration

Ingredients(CAS#)	concentration
Al substrate(7429-90-5)	98
Coating	2
Stilben derivative(89114-90-9)	(33)
Polycarbonate(25135-52-8)	(48)
titanium dioxaide(13463-67-7)	(15)
Organic Pigment(no registered)	(1)
melamine-formaldehyde-	
isobutanol-cocondensation resin(9003-08-1)	(1)
bensouquanamine resin-	
modified alkyds(91-76-9)	(2)

():Concentration of the coating

2.2. Substances presenting a health hazard and concentration : Not applicable

2.3. Symbols of danger and R phrases : Not applicable

3. Hazards identification

Not applicable

4. First-aid measures

4.1. Inhalation : Not applicable

4.2. Skin contact : Not applicable (Wash thoroughly with soap and water)

4.3. Eye contact : Not applicable

4.4. Ingestion : Not applicable

5. Fire-fighting measures

- 5.1. Suitable extinguishing media : Water, foam or dry chemical.
- 5.2. Extinguishing media which must not be used for safety reasons : None
- 5.3. Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases :
Carbon monoxide and other decomposition products in case of incomplete combustion.
- 5.4. Special protective equipment for fire-fighters : None

6. Accidental release measures

Not applicable

7. Handling and storage

- 7.1. Handling : Not applicable (Don't touch the surface of OPC by the hand directly.)
- 7.2. Storage : Not applicable (Store in cool and dry place.)

8. Exposure controls/personal protection

- 8.1. Respiratory protection : None under normal use condition.
- 8.2. Hand protection : None under normal use condition.
- 8.3. Eye protection : None under normal use condition.
- 8.4. Skin protection : None under normal use condition.

9. Physical and chemical properties

Dark blue drum, no odor.
Boiling point : Not applicable Specific Gravity(H₂O=1) : Not applicable
Vapor Pressure(mmHg) : Not applicable Melting Point : Not applicable
Vapor Density(Air=1) : Not applicable Evaporation Rate(Butyl Acetate=1) : Not applicable
Solubility in Water : Negligible

10. Stability and reactivity

- 10.1. Conditions to avoid : Not applicable
- 10.2. Materials to avoid : Not applicable
- 10.3. Hazardous decomposition products :
Carbon monoxide and other decomposition products in case of incomplete combustion.

11. Toxicological information	
There are no health hazards under normal use condition. Acute oral toxicity : Greater than 2g/kg bodyweight(Main ingredients). Skin irritation(rabbit):None-irritant (Main ingredients) Ames test result:Negative (Main ingredients)	
12. Ecological information	
None	
13. Disposal considerations	
Used drum should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Do not incinerata.	
14. Transport information	
UN number : Not applicable	
15. Regulatory information	
92/32/EEC of 30 April 1992 : Not applicable	The Classification Packaging and Labelling of Dangerous Substances Regulation 1984. :Not applicable
The control of Substances Hazardous to Health Regulations 1988. : Not applicable	Gefahrstoffverordnung-Gefstoff v 1986. : Not applicable
Packing Material Regulation in Germany. : Not applicable	Hazardous Waste Designation Decree of the Kingdom of the Neherlands. : Not applicable
16. Other information	
None	

Signature
Name and position

M. Morooka
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Masakatsu Morooka
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General Manager
.....
Quality Assurance Department
.....
Chemical products Business Group
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SAFETY and HEALTH INFORMATION

issued on Dec. 16,'96

MODEL NAME:RICOH FT4015 and its Consumables
(Kingfisher); Infotec 5151z

1. Safety Standards

(1) Electrical Safety

Safety Standards	<u>UL</u>	<u>CSA</u>	<u>EN60950</u>
	1950	C22.2-No.220	
RICOH FT4015	OK	OK	OK

(2) Radio Interference

Safety Standards	<u>FCC</u>	<u>VDE</u>
	Class A	0871,0875
RICOH FT4015	OK	OK

2. Hazardous Materials Generated by Operation of Machines

(1) Ozone produced by the machine

1.1 Conditions of measurement

Room size -----	32.8 cubic meter
Machine operation -----	8 hours continuous with ozone filter
Ventilation -----	no ventilation
Temperature and humidity -----	24-29, 50-60%RH
Measurement equipment -----	Dylec Ozone Monitor Dy 1500
Paper size used -----	A-4
Measurement method -----	UL method

1.2 Result of measurement

Operator's breathing area -----	0.038ppm(average)
	0.041ppm(maximum)

1.3 Evaluation

The above result is below the OSHA permissive concentration of 0.1ppm and judged safe under normal use condition.

(2) Dust produced by the machine

2.1 Conditions of measurement

Room size -----	30 cubic meter
Machine operation -----	Intermittent operation under the conditions of 0.31 min. on/59.69 min. off
Ventilation -----	no ventilation
Temperature and humidity -----	24-29, 40-58%RH
Measurement equipment -----	Piezobalance dust meter
Paper size used -----	A-4(6 %)

2.2 Results of measurement

Operator's breathing area -----	0.003mg/m ³
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The copy volume produced under the above machine operation condition is equivalent to 1.5 times of the specified copy volume of this copier.

2.3 The above result is well below the OSHA permissive concentration of 5mg/m³ and judged safe under normal conditions of use.

**MODEL NAME: RICOH FT4015 and its Consumables
(Kingfisher)); Infotec 5151z**

3. Noise Level

3-1. Sound Power Level

	Copier Only	Full System
Copying -----	63 dB(A)	67 dB (A) (L _{WA})
Stand-by -----	40 dB(A)	40 dB (A) (L _{WA})

The measurements are made in accordance with ISO 7779.

3-2. Sound Pressure Level at the operator position

	Copier Only	Full System
Copying -----	57 dB(A)	61 dB (A) (L _{PA})

The measurements are made in accordance with ISO 7779 at the operator position.

* Full system: Copier with document feeder and 10-bin sorter

4. Power Consumption and Heat Emission

	<u>Power Consumption</u>		<u>Heat Emission</u>	
	<u>Copier only</u>	<u>Full system</u>	<u>Copier only</u>	<u>Full system</u>
Warm-up	0.95 kW	0.95 kW	490 kcal *	490 kcal *
Copy cycle	0.71 kW	0.74 kW	366 kcal *	382 kcal *
Stand-by	0.25 kW	0.25 kW	129 kcal *	129 kcal *
Maximum(120V)	1.40 kW	1.50 kW	722 kcal *	774 kcal *
Maximum(230V)	0.90kW	1.00 kW	464 kcal *	516 kcal *

* Supposing that 60% of the electrical power consumption would be converted into heat.

5. Health Hazard Data

(1) Toner:	
Skin sensitization(guinea pig)	: Not sensitized
Acute oral toxicity(rat) LD ₅₀	: Greater than 5g/kg body weight.
Skin irritation(rabbit)	: None irritant
Ames test results	: Negative

6. Scanner Light Source

A halogen lamp is used. The emission amount of ultraviolet rays of less than 320 NM wave length which are said to have some effects on human body is in a negligible level.

7. Safety Data on Supply Items

(Refer to Material Safety Data Sheets.)

- (1)OPC for FT4015
- (2)Toner for FT4015
- (3)Developer for FT4015

Material Safety Data Sheet

Data issued : '96.08.02

<p>1. Identification of the substance/preparation and of the company/undertaking</p> <p>1.1. Product name : Toner for FT4015</p> <p>1.2. Company name : RICOH Company Ltd. Address : 16-1 Honda-machi, Numazu-shi , Shizuoka-ken , 410 Japan Telephone number for information : 0559-21-2251 Emergency telephone number : Ditto</p>												
<p>2. Composition/information on ingredients</p> <p>2.1. Ingredients and their concentration</p> <table><tr><td>Styrene Acrylic Polymer</td><td>(CAS#: 25036-19-5)</td><td>57%</td></tr><tr><td>Polyester Resin</td><td>(CAS#: Confidential)</td><td>26%</td></tr><tr><td>Polyolefine</td><td>(CAS#: 9003-07-0)</td><td>4%</td></tr><tr><td>Carbon Black</td><td>(CAS#: 1333-86-4)</td><td>13%</td></tr></table> <p>2.2. Substances presenting a health hazard and concentration : None.</p> <p>2.3. Symbols of danger and R phrases : Not applicable.</p>	Styrene Acrylic Polymer	(CAS#: 25036-19-5)	57%	Polyester Resin	(CAS#: Confidential)	26%	Polyolefine	(CAS#: 9003-07-0)	4%	Carbon Black	(CAS#: 1333-86-4)	13%
Styrene Acrylic Polymer	(CAS#: 25036-19-5)	57%										
Polyester Resin	(CAS#: Confidential)	26%										
Polyolefine	(CAS#: 9003-07-0)	4%										
Carbon Black	(CAS#: 1333-86-4)	13%										
<p>3. Hazards identification</p> <p>None under normal use condition.</p>												
<p>4. First-aid measures</p> <p>4.1. Inhalation : Remove from exposure.</p> <p>4.2. Skin contact : Wash thoroughly with soap and water.</p> <p>4.3. Eye contact : Try to remove with eye drops or flush with water.</p> <p>4.4. Ingestion : Dilute stomach contents with several glasses of water.</p>												

5. Fire-fighting measures
<p>5.1. Suitable extinguishing media : Foam, water spray(fog), dry chemical or carbon dioxide may be suitable.</p> <p>5.2. Extinguishing media which must not be used for safety reasons : None needed.</p> <p>5.3. Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases : Carbon monoxide and other decomposition product in case of incomplete combustion.</p> <p>5.4. Special protective equipment for fire-fighters : None needed.</p>
6. Accidental release measures
<p>If spilled up or pick up by vacuum cleaner(rater for developer extraction). Remove residue with soap and cold water.</p>
7. Handling and storage
<p>7.1. Handling : Do not handle in areas where blows.</p> <p>7.2. Storage : Store in cool and dry place. Keep out of children.</p>
8. Exposure controls/personal protection
<p>8.1. Respiratory protection : None needed under normal use condition.</p> <p>8.2. Hand protection : None needed under normal use condition.</p> <p>8.3. Eye protection : None needed under normal use condition.</p> <p>8.4. Skin protection : None needed under normal use condition.</p>
9. Physical and chemical properties
<p>Appearance : Black powder. Odor : Slight plastic odor. Bulk density : Approx. 0.31</p>
10. Stability and reactivity
<p>10.1. Conditions to avoid : None.</p> <p>10.2. Materials to avoid : None.</p> <p>10.3. Hazardous decomposition products : None.</p>

11. Toxicological information
Health Hazards(Acute and Chronic) Skin sensitization(guinea-pig) : Not sensitized. Acute oral toxicity(rat)LD ₅₀ : Greater than 5g/kg bodyweight. Skin irritation (rabbit) : None irritant. Ames test result : Negative.
12. Ecological information
None information.
13. Disposal considerations
Used toner should be disposed of in an environmentally appropriate manner and in accordance with governmental regulation.
14. Transport information
Avoid direct sunlight. Do not incinerate.
15. Regulatory information
No information.
16. Other information
No information.

page 3 of 3 Product name : Toner for FT4015

発行日: '95年 5月15日 化粧品D0015 PL様式 3-12

Signature M. morooka
Name and position Masakatsu Morooka
General Manager
Quality Assurance Department
Chemical Products Business Group

Material Safety Data Sheet

RICOH

Data issued : '96.08.02

1. Identification of the substance/preparation and of the company/undertaking**1.1. Product name :**

Developer for FT4015

1.2. Company name :

Address : 16-1 Honda-machi , Numazu-si , Shizuoka-ken , 410 Japan

Telephone number for information : 0559-21-2251

Emergency telephone number : Ditto

2. Composition/information on ingredients**2.1. Ingredients and their concentration**

Iron Oxide	(CAS#: 1317-61-9)	96%
Styren Acrylic Polymer	(CAS#: 25036-19-5)	} — 4%
Polyolefine	(CAS#: 9003-07-0)	
Polyaster Resin	(CAS#: Confidential)	
Carbon Black	(CAS#: 1333-86-4)	

2.2. Substances presenting a health hazard and concentration :
None.**2.3. Symbols of danger and R phrases :**
Not applicable.**3. Hazards identification**

None under normal use condition.

4. First-aid measures**4.1. Inhalation :** Remove from exposure.**4.2. Skin contact :** Wash thoroughly with soap and water.**4.3. Eye contact :** Try to remove with eye drops or flash with water.**4.4. Ingestion :** Dilute stomach contents with several glasses of water.

5. Fire-fighting measures
<p>5.1. Suitable extinguishing media : CO₂, dry chemical or carbon dioxide may be suitable.</p> <p>5.2. Extinguishing media which must not be used for safety reasons : None needed.</p> <p>5.3. Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases : Carbon monoxide and other decomposition product in case of incomplete combustion.</p> <p>5.4. Special protective equipment for fire-fighters : None needed.</p>
6. Accidental release measures
<p>If spilled up or pick up by vacuum cleaner(rated for developer extraction). Remove residue with soap and cold water.</p>
7. Handling and storage
<p>7.1. Handling : Do not handle in areas where winds blows.</p> <p>7.2. Storage : Store in cool and dry place. Keep out of children.</p>
8. Exposure controls/personal protection
<p>8.1. Respiratory protection : None needed under normal use condition.</p> <p>8.2. Hand protection : None needed under normal use condition.</p> <p>8.3. Eye protection : None needed under normal use condition.</p> <p>8.4. Skin protection : None needed under normal use condition.</p>
9. Physical and chemical properties
<p>Appearance : Black powder. Odor : Slight plastic odor. True density : Approx. 4.6 Apparent density : Approx.1.9</p>
10. Stability and reactivity
<p>10.1. Conditions to avoid : None.</p> <p>10.2. Materials to avoid : None.</p> <p>10.3. Hazardous decomposition products : None.</p>

11. Toxicological information
Acute oral toxicity(rat) LD ₅₀ : Greater than 5g/kg bodyweight. Skin irritation (rabbit) : None irritant. Ames test result : Negative.
12. Ecological information
No infomation.
13. Disposal considerations
Used Developer should be disposed of in an enviromentally appropriate manner and in accordance with governmental regulation.
14. Transport information
Avoid direct sunlight. Do not incinerate.
15. Regulatory information
No infomation.
16. Other information
No infomation.

page 3 of 3 Product name : Developer for FT4015

発行日: '95年 5月15日 化品D0015 PL様式 3-12

Signature M. morooka
Name and position Masakatsu Morooka
General Manager
Quality Assurance Depatment
Chemical Product Buiness Group