

**TOYO INK  
MFG. CO., LTD.**

Cable Address:  
**ORIENTAL TOKYO**  
Telex NO. 222-6563

NO. 3-13, Kyobashi 2-Chome,  
Chuo-ku, Tokyo, Japan  
Tel. 03-272-5711

January 8, 1988

Messrs, Matsushita Electric Industrial Co., Ltd.

**CERTIFICATE**

Dear Sirs,

We hereby certify that all chemical substances found in the following products comply with all applicable rules and orders under TSCA (Toxic substances control act). They consist of chemical substances which are included in TSCA inventory: **TONER (FO-T10CR-PC)** and **DEVELOPER (FO-Z103R-PC)** to be applied to PPC copier FP-1300, of Matsushita Electric Industrial Co., LTD. made.

INGREDIENTS		CAS #	%
(CHEMICAL NAME)			
TONER (FO-T10CR-PC)	C.I. Pigment Red 48:3	15782-05-5	1 ~ 6
	Iron Oxide	1309-37-1	5 ~ 10
	Titanium Oxide	13463-67-7	15 ~ 20
	Resin	25767-47-9	} 75 ~ 80
	Resin	9003-07-0	
	Additive	7631-86-9	< 1
	Additive	72869-85-3	1 ~ 6

INGREDIENTS		CAS #	%
(CHEMICAL NAME)			
DEVELOPER (FO-Z103R-PC)	C.I. Pigment Red 48:3	15782-05-5	< 1
	Mn-Ferrite	1309-38-2	} 55 ~ 60
		1313-13-9	
	Iron Oxide	1309-37-1	1 ~ 6
	Titanium Oxide	13463-67-7	1 ~ 6
	Resin	25767-47-9	} 37 ~ 42
	Resin	39382-25-7	
Additive	7631-86-9	< 1	

Sincerely yours,  
TOYO INK MFG. CO., LTD.

*Masaru Suzuki*  
Masaru Suzuki  
Sect. Manager  
Electronic Materials Div.

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**MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.**

Office Equipment Division  
9-1, Hiraike Kogyo Danchi, Utsunomiya City, Tochigi Pref., 321-JAPAN  
Phone No. Japan 0286-63-3223. Fax No. Japan 0286-62-8333.

**Material Safety Data Sheet** FP-1300/1310R  
RED DEVELOPER

(This Form is Similar to U.S. Labor Dept. Form Approved OEB No. 1218-0072)

SECTION I		Date: Jan. 8, 1988
Product Name Panasonic Developer FO-Z103R-PC	Chemical Name & Synonyms Electrostatic Developer	
Product Class Inert resinated dark red powder	Emergency Phone No. Matsushita Electric Industrial Co., Ltd. Japan 0286-63-3221	

**SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

HAZARDOUS COMPONENTS (CHEMICAL NAME)	CAS #	%	(L: listed, NL: not listed.)			
			OSHA PEL	OSHA PEL	ACGIH TLV	ACGIH TLV
C.I. Pigment Red 48:3	15782-05-5	(1)	NL	NL	NL	NL
Mn-Ferrite	1309-38-2	} 55-60	NL	NL	NL	NL
	1313-13-9		L	5.0mg/m <sup>3</sup>	L	5.0mg/m <sup>3</sup>
Iron Oxide	1309-37-1	1-6	NL	NL	NL	NL
Titanium Oxide	13463-67-7	1-6	L	15.0mg/m <sup>3</sup>	L	10.0mg/m <sup>3</sup>
Resin	25767-47-9	} 37-42	NL	NL	NL	NL
	39382-25-7		NL	NL	NL	NL
Additive	7631-86-9	(1)	L	10.0mg/m <sup>3</sup>	L	10.0mg/m <sup>3</sup>

TLV of the Product: 10 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable)  
PEL of the Product: 15 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable)

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

Boiling Point	Not applicable.	Specific Gravity (H <sub>2</sub> O = 1)	2.5
Vapor Pressure (mm Hg.)	Not applicable.	Melting Point	Not applicable.
Vapor Density (AIR = 1)	Not applicable.	Evaporation Rate (Butyl Acetate = 1)	Not applicable.
Solubility in Water	Insoluble.		
Appearance and Odor	Fine dark red powder, practically odourless.		

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point (Method Used)	Not applicable.	Flammable Limits	Not applicable.
Extinguishing Media	Water, CO <sub>2</sub> , Foam, Dry Chemical.		
Special Fire Fighting Procedures	Not flammable or combustible but will burn if ignited. Extinguish with water, CO <sub>2</sub> , foam, dry chemical.		
Unusual Fire and Explosion Hazards	None under normal storage and use conditions.		

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FP-1300/1310R  
RED DEVELOPER

SECTION V - REACTIVITY DATA

Stability	Instable		Condition to Avoid	Abnormally high temperature.
	Stable	✓		
<u>Compatibility-Other chemicals</u>				
None.				
Hazardous Decomposition or Byproducts				
None in normal handling and use.				
Hazardous Polymerization	May Occur		Condition to Avoid	Abnormally high temperature.
	Will Not Occur	✓		

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation ?	Skin ?	Ingestion ?
	✓	✓	✓
Health Hazard (Acute and Chronic)			
Health hazard is minimal being neither irritating, corrosive, volatile, nor toxic. Mutagenicity is negative.			
Carcinogenicity:			
	MTP ?	IARC Monographs ?	OSHA Regulated ?
Not use carcinogens which are listed in NTP, IARC and OSHA.			
Signs and Symptoms of Exposure			
Contact with eyes may result in mechanical irritation. Inhalation of dust may irritate mucous membranes. Ingestion may result in gastric disturbances.			
Hazardous Conditions			
Generally Aggravated by Exposure	EYES-----	Immediately wash eyes with running water for 15 minutes. If irritation develops, get medical attention.	
Emergency and First Aid Procedures	SKIN-----	Wash affected areas with soap and water. If irritation develops, get medical attention. Remove and launder contaminated clothing before reuse.	
	INGESTION----	If swallowed dilute with water and immediately induce vomiting. Get medical attention if the victim is unconscious or having convulsion.	
	INHALATION----	Remove to fresh air area. Aid in breathing if necessary and get medical attention.	

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled	Vacuum or sweep up dry powder.
Waste Disposal Method	Dispose in accordance with local, state and federal regulations.
Precautions to Be Taken in Handling and Storage	Avoid dust inhalation and skin contact.
Other Precautions	Keep containers closed. Store in a cool, dry place.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type)			
None required under normal use.			
Ventilation	Local Exhaust	None required under normal use.	Special
	Mechanical (General)	None required under normal use.	Other
Protective Gloves	None required under normal use.	Eye Protection	None required under normal use.
Other Protective Equipment	None required under normal use.		
Work/Hygiene Practices	Minimize breathing dust.		

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MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.  
Office Equipment Division  
9-1, Hissaido Kogyo Danchi, Utsunomiya City, Tochigi Pref., 321-JAPAN  
Phone No. Japan 0286-63-3221 Fax No. Japan 0286-62-8147

Material Safety Data Sheet

FP-1300/1310R  
RED TONER

(This Form is Similar to U.S. Labor Dept. Form Approved OED No. 1218-0072)

SECTION I

Date: Jan. 8, 1988

Product Name	Panasonic Dry Toner FQ-T10CR-PC	Chemical Name & Synonyms	Electrostatic Toner
Product Class	Inner resinated red powder	Emergency Phone No.	Matsushita Electric Industrial Co., Ltd. Japan 0286-63-3221

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (INCIDENTAL NAME)	CAS #	%	LISTED AS A HAZARDOUS			
			OSHA	OSHA PEL	ACGIH TLV	ACGIH TLV
C.I. Pigment Red 48:2	15782-05-5	1-6	NL	NL	NL	NL
Iron Oxide	1309-37-1	5-10	NL	NL	NL	NL
Titanium Oxide	13463-67-7	15-20	L	15.0mg/m <sup>3</sup>	L	10.0mg/m <sup>3</sup>
Resin	27167-47-9	75-80	NL	NL	NL	NL
Resin	9403-07-0		NL	NL	NL	NL
Additive	7631-86-9	( 1	L	80.0mg/m <sup>3</sup>	L	10.0mg/m <sup>3</sup>
Additive	78869-85-3	1-6	NL	NL	L	0.5mg/m <sup>3</sup>

TLV of the Product: 10 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable)  
PEL of the Product: 15 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable)

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	Not applicable.	Specific Gravity (H <sub>2</sub> O = 1)	1.3
Vapor Pressure (mm Hg.)	Not applicable.	Melting Point	165 °C
Vapor Density (AIR = 1)	Not applicable.	Evaporation Rate (Butyl Acetate = 1)	Not applicable.
Solubility in Water	Insoluble.		
Appearance and Odor	Fine red powder, practically odourless.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Not applicable.	Flammable Limits	Not applicable.
Extinguishing Media	Water, CO <sub>2</sub> , Foam, Dry Chemical.		
Special Fire Fighting Procedures	Not flammable or combustible but will burn if ignited. Extinguish with water, CO <sub>2</sub> , foam, dry chemical.		
Unusual Fire and Explosion Hazards	None under normal storage and use condition.		

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