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## EU MATERIAL SAFETY DATA SHEET (1/4)

PRODUCT NAME: BLACK TONER  
PART No.: PFIA1004YA

MSDS No.: MSDS-E-201  
DATE REVISED: 1-Mar-10

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or preparation: BLACK TONER (Preparation)

1.2. Use of the substance/preparation: Multi-Function-Printer KX-MC6000 series, DP-MC210 series  
Toner cartridge KX-FATK504, KX-FATK509, DQ-TUA04K  
Drum Unit KX-FADK511, DQ-UHA10K

#### 1-3. Company/undertaking identification

**DISTRIBUTOR'S NAME:**

**DISTRIBUTOR'S ADDRESS:**

**A PERSON IN CHARGE:**

**TELEPHONE NUMBER:**

#### 1-4. Emergency telephone

(MANUFACTURER)

**MANUFACTURER'S NAME:** Panasonic System Networks Co., Ltd.

**MANUFACTURER'S ADDRESS:** 1471 Murata-Machi, Tosu, Saga, Japan

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**CHEMICAL PRODUCT:** Preparation

<u>Ingredients</u>	<u>EINECS No.</u>	<u>CAS No.</u>	<u>Proportion</u> (% by wt.)	<u>SYMBOLS/R-PHRASE</u>
Polyester resin	(+++)	(+++)	80-90%	Not required
Wax	(+++)	(+++)	4-8%	Not required
Carbon black	215-609-9	1333-86-4	1.5-5%	Not required
Charge control agent (+)	250-774-0	31714-55-3	0.5-3%	Not required
Organic pigment	(+++)	(+++)	3-8%	Not required
Silica (++)	272-697-1	68909-20-6	1-4%	Not required

(+) : hydrogen bis[1-[(5-chloro-2-hydroxyphenyl)azo]-2-naphtholato(2-)]chromate(1-)

/NON-SENSITIVE-MATERIAL

(++) : Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica

(+++): Confidential information

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## 3. HAZARD IDENTIFICATION

This preparation is not classified as dangerous according to Directive 1999/45/EC.

### POTENTIAL HEALTH EFFECTS

**EYES:** Solid or dusts may cause irritation or corneal injury due to mechanical action.  
**SKIN CONTACT:** Essentially nonirritating to skin.  
**SKIN ABSORPTION:** Skin absorption is unlikely due to physical properties.  
**INGESTION:** Oral toxicity is believed to be low. Considered to be physiologically inert.  
**INHALATION:** Minimal irritation to respiratory track may occur.

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## 4. FIRST AID MEASURES

Immediate medical attention is not required.

**EYES:** Flush eyes immediately with plenty of water for at least 15 minutes.  
**SKIN:** Flush with plenty of water. Use soap.  
**INGESTION:** If irritation or discomfort occurs, consult medical personnel.  
**INHALATION:** Remove to fresh air. If effects occur, consult medical personnel.

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## EU MATERIAL SAFETY DATA SHEET (2/4)

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### 5. FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Water fog, foam, CO<sub>2</sub>, dry chemical.

**EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS :** None

**SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE OR PREPARATION ITSELF,**

**COMBUSTION PRODUCTS,RESULTING GASES:** The decomposition products are CO,CO<sub>2</sub>orNO<sub>x</sub>.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:** Wear full bunker gear including a positive pressure self-contained breathing apparatus in case of burning in large quantities.

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### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Removal of ignition source,provision for sufficient ventilation/respiratory protection,control of dust,prevention of skin and eye contact.

**ENVIRONMENTAL PRECAUTIONS:** None

**METHODS FOR CLEANING UP:** Wipe off with paper or cloth.

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### 7. HANDLING AND STORAGE

#### 7.1.Handling

**TECHNICAL MEASURES:** None

**PRECAUTIONS:** None

**SAFE HANDLING ADVICE:** Try not to disperse the particles.

#### 7.2.Storage

**TECHNICAL MEASURES:** None

**STORAGE CONDITIONS:** Keep container closed. Store in a cool and dry place.

#### 7.3.Specific use(s)

The image formation of Type-KX-MC6020 series Color Laser MFP.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1.Exposure limit values

**CONTROL PARAMETERS(As total dust)**      **ACGIH-TLV(USA):** 10mg/m<sup>3</sup>  
(ACGIH:American Conference of Government Industrial Hygienists)

<u>Ingredients</u>	<u>EINECS No.</u>	<u>CAS No.</u>	<u>Proportion (% by wt.)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Carbon black	215-609-9	1333-86-4	1.5-5%	3.5mg/m <sup>3</sup>	3.5mg/m <sup>3</sup>
Charge control agent (+)	250-774-0	31714-55-3	0.5-3%	0.5mg/m <sup>3</sup>	0.5mg/m <sup>3</sup>
Silica (++)	272-697-1	68909-20-6	1-4%	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>

Polyester resin/Wax/Organic pigment are not listed.

#### 8.2.Exposure controls

##### 8.2.1 Occupational exposure controls

**8.2.1.1. Respiratory protection:** No precautions should be needed under normal use.

**8.2.1.2. Hand protection:** No precautions should be needed under normal use.

**8.2.1.3. Eye protection:** No precautions should be needed under normal use.

**8.2.1.4. Skin protection:** No precautions should be needed under normal use.

**OTHER:**For use other than normal customer-operating procedures(such as in bulk toner processing facilities), goggles and respirators may be required.

**8.2.2. Environmental exposure control:** No precautions should be needed under normal use.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. General information

**APPEARANCE:** Black fine powder

**ODOR:** None

#### 9.2. Important health, safety and environmental information

<b>pH:</b>	N.A.(not applicable)	<b>RELATIVE DENSITY:</b>	1. 2(g/cm <sup>3</sup> )
<b>BOILING POINT:</b>	N.A.(not applicable)	<b>WATER SOLUBILITY</b>	Negligible
<b>FLASH POINT:</b>	No data available	<b>FAT SOLUBILITY:</b>	No data available
<b>FLAMMABILITY:</b>	No data available	<b>PARTITION COEFFICIENT:</b>	No data available
<b>EXPLOSIVE PROPERTIES</b>	No data available	<b>VISCOSITY:</b>	No data available
<b>OXIDISING PROPERTIES:</b>	No data available	<b>VAPOUR DENSITY:</b>	N.A.(not applicable)
<b>VAPOUR PRESSURE:</b>	N.A.(not applicable)	<b>EVAPORAYON RATE:</b>	N.A.(not applicable)

#### 9.3. Other information

**PARTICLE SIZE:** 5-15 (  $\mu$  m)  
**SOFTENING POINT:** 100-150 (°C)

**BULK DENSITY:** 0.4 (g/cm<sup>3</sup>)

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### 10. STABILITY AND REACTIVITY

**10.1. Conditions to avoid:** None

**10.2. Materials to avoid:** None

**10.3. Hazardous decomposition products:** CO, CO<sub>2</sub> or NO<sub>x</sub> (by high heat and fire)

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### 11. TOXICOLOGICAL INFORMATION

**HEALTH EFFECTS FROM EXPOSURE:** No symptoms expected with intended use.

#### TOXICOLOGICAL DATA

##### ACUTE TOXICITY

**ORAL TOXICITY:** LD<sub>50</sub> > 2000mg/kg(Rat) (++)  
**EYE IRRITATION:** No Data  
**SKIN IRRITATION:** NON-IRRITANT(Rabbit) (++)  
**SKIN SENSITISATION:** NON-SENSITIVE(Guinea Pig) (++)  
**INHALATION TOXICITY:** No Data  
(++):Data of similar material with same ingredients

**MUTAGENICITY:** NON-MUTAGENIC(Ames Test)

#### OTHER INFORMATION

##### CHRONIC TOXICITY

In a study in rats by chronic inhalation to typical toner, mild to moderate degree of lung fibrosis was observed in 92% of rats in high concentration(16 mg/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m<sup>3</sup>) exposure group. But no pulmonary change was reported in the lowest(1mg/m<sup>3</sup>) exposure group, which the most relevant level to potential human exposures.

##### CARCINOGENICITY:

In 1996, the IARC reevaluated carbon black as a GROUP 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter 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. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

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## **EU MATERIAL SAFETY DATA SHEET (4/4)**

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### **12. ECOLOGICAL INFORMATION**

#### **12.1. Ecotoxicity**

No data are available on the adverse effects of this material on the environment.

#### **12.2. Mobility**

No data are available on the adverse effects of this material on the environment.

#### **12.3. Persistence and degradability**

No data are available on the adverse effects of this material on the environment.

#### **12.4. Bioaccumulative potential**

No data are available on the adverse effects of this material on the environment.

#### **12.5. Other adverse effects**

No data are available on the adverse effects of this material on the environment.

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### **13. DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Waste must be disposed of in accordance with country and local environmental control regulations. Incineration is preferred method.

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### **14. TRANSPORT INFORMATION**

TRANSPORT INFORMATION: This is not a hazardous product.  
UN No.: None allocated.

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### **15. REGULATORY INFORMATION**

This preparation is not classified as dangerous according to Directive 67/548/EEC, 1999/45/EC and 76/769/EEC.

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### **16. OTHER INFORMATION**

#### **USER'S RESPONSIBILITY**

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation must be examined if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.