

# Panasonic Communications Co., Ltd.

## Digital Imaging Company

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### Material Safety Data Sheet

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MSDS No.: 021-000302

Date : 6 January, 2003

#### SECTION 1 PRODUCT IDENTIFICATION

Product Name: Toner Cartridge for Panasonic Digital Imaging System, Models DP-1510P, DP-1810F, DP-1810P and DP-2010E  
Product No.: DQ-TU10C  
Contact: Panasonic Testing Center  
Winsbergring 15 / 22525 Hamburg Germany  
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#### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PROPORTION (% by wt.)	EC #	SYMBOLS	R PHRASE
Styrene acrylate copolymer		> 48.0		None	None
Iron oxide		< 46.0		None	None
Polypropylene		< 3.0		None	None
Paraffin wax		< 3.0		None	None

#### SECTION 3 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: Odorless black powder.  
Not a high flammable, but when suspended in air, is combustible as with most organic powders.

##### POTENTIAL HEALTH EFFECTS:

EYES: Solid or dusts may cause irritation or corneal injury.  
SKIN CONTACT: Essentially nonirritating to skin.  
SKIN ABSORPTION: Skin absorption is unlikely due to physical properties.  
INGESTION: Oral toxicity is believed to be low.  
INHALATION EFFECTS: Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.  
May cause cough and raise phlegm.

CHRONIC EFFECTS/CARCINOGENICITY: Not aware of any health effects associated with toner under its intended use.

##### FIRE AND EXPLOSION:

SENSITIVITY TO MECHANICAL IMPACT : None  
SENSITIVITY TO STATIC CHARGE : None

#### SECTION 4 FIRST AID MEASURES

**EYE CONTACT:** Any material that contacts the eye should be washed out immediately with water.  
Get medical attention if symptoms is occur.

**SKIN CONTACT:** Wash after each contact.  
Get medical attention if symptoms is occur.

**INHALATION:** If symptomatic, remove to fresh air.  
Get medical attention if symptoms persist.

**INGESTION:** If swallowed, drink 1-2 glasses of water and immediately induce vomiting. Get medical attention.

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#### SECTION 5 FIRE FIGHTING MEASURES

**FLASH POINT:** No data available.

**FLAMMABLE LIMITS:** No data available.

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

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, Carbon dioxide and Smoke

**FIRE AND EXPLOSION HAZARDS:** If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

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#### SECTION 6 ACCIDENTIAL RELEASE MEASURES

Minimize the release of particulates. Wear personal protective equipment. Sweep up or vacuum spilled toner and carefully transfer into sealed waste container. Sweep slowly to minimize generation of dust during cleanup. If a vacuum is used, the motor must be rated as dust tight. Residue can be removed with soap and water. Garments may be washed or dry cleaned, after removal of loose toner.

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#### SECTION 7 HANDLING AND STORAGE

**HANDLING:** Avoid creating dust. Clean up all spills promptly.  
Inhalation and contact with skin or eyes should be avoided.  
Provide general ventilation. Good general ventilation should be sufficient of most conditions.

**STORAGE:** Store in a cool, well ventilated place away from flames and spark-producing equipment.

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#### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE GUIDELINES:** ACGIH TLV= 10mg/m<sup>3</sup>(Total dust)  
OSHA PEL= 15mg/m<sup>3</sup>(Total dust), 5mg/m<sup>3</sup>(Respirable dust)

**ENGINEERING CONTROLS:** Good general ventilation is recommended.

**RESPIRATORY PROTECTION:** Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

**SKIN PROTECTION:** Not required under normal conditions.

**EYE PROTECTION:** Not required under normal conditions.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black fine powder  
ODOR: None  
pH: Not applicable  
VAPOR PRESSURE (mg Hg.): Not applicable  
VAPER DENSITY (AIR=1): Not applicable  
EVAPORATION RATE: Not applicable  
BOILING POINT (°C): Not applicable  
SOFTENING POINT (°C): Not applicable  
SOLUBILITY IN WATER: Negligible  
SPECIFIC GRAVITY (H<sub>2</sub>O=1): 1.6

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SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable  
HAZARDOUS REACTIONS: Dust explosion, like most finely divided organic powders.  
CONDITIONS TO AVOID: Electronic discharge, throwing into fire.  
MATERIALS TO AVOID: Oxidizing materials.  
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon dioxide and Smoke.

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SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS FROM EXPOSURE: No symptoms expected with intended use.  
ACUTE TOXICITY:  
INHALATION: Finely divided solid. Avoid exposure to dust.  
EYES: No specific hazard known. May cause temporary irritation.  
SKIN: Low hazard for recommended handling.  
INGESTION: Expected to be a low ingestion hazard.  
MUTAGENICITY: Negative in the Ames test  
CARCINOGENICITY:  
No carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA(USA) regulation and EU Directive.

CHRONIC EFFECTS:

In study in rats (H. Muhle) 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/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, the most relevant level to potential human exposure.

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SECTION 12 ECOLOGICAL INFORMATION

No data available.

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SECTION 13 DISPOSAL CONSIDERATION

METHOD OF DISPOSAL: When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

SECTION 14 TRANSPORT INFORMATION

UN CLASS: None allocated.  
DOT CLASS: None allocated.  
TDG CLASS: None allocated.

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SECTION 15 REGULATORY INFORMATION

CLASSIFICATION and LABELLING ACCORDING TO EU DIRECTIVES:

CLASSIFICATION: Not classified as hazardous.

SPECIAL PROVISIONS OF ANNEX V TO DIRECTIVE 1999/45/EC:

Contains "hydrogen bis[1-[(5-chloro-2-hydroxyphenyl)azo]-2-naphtholato  
(2-)] chromate(1-)". May produce an allergic reaction.

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SECTION 16 OTHER INFORMATION

HMIS RATING: The National Paint and Coating Association(USA)

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

REFERENCES:

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper,  
J.C.Mackenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein (1991) Pulmonary  
Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and  
Applied Toxicology 17, pp.280-299.

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Information on this data sheet represents our current data and best opinion as to the proper use  
in handling of this product under normal conditions.