

Panasonic Communications Co., Ltd.

Digital Imaging Company

9-1 Hiraide Industrial Park, Utsunomiya City, Tochigi, 321-8502 Japan

TEL : Japan (0) 28-683-6660, FAX : Japan (0) 28-662-8393

Material Safety Data Sheet

Page: 1 of 4

MSDS No.: 021-000376

Date : 21st January, 2003

SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner of DQ-TU10C Toner Bottle and DZHP005702 Process Unit for Panasonic Digital Copier Models DP-1510P, DP-1810P, DP-1810F and DP-2010E

Product No. : Toner of DQ-TU10C Toner Bottle and DZHP005702 Process Unit

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (Common Name)	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
• Styrene-acrylate copolymer	-	> 47.0	None established	None established	None
• Polypropylene	-	< 4.0	None established	None established	None
• Paraffine wax	-	< 4.0	None established	None established	None
• Iron oxide	1309-38-2	< 45.0	None established	None established	None

SECTION 3 HAZARDOUS IDENTIFICATION

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

POTENTIAL HEALTH EFFECTS:

EYE EFFECTS : Solid or dusts may cause irritation or corneal injury.

SKIN EFFECTS : Essentially nonirritating to skin.
Skin absorption is unlikely due to physical properties.

INGESTION EFFECTS : Oral toxicity is believed to be low.

INHALATION EFFECTS : Minimal irritation to respiratory track may occur.

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.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT : Not applicable.

FLAMMABLE LIMITS : Not applicable.

EXTINGUISHING MEDIA : Water fog, dry chemical, foam or CO₂.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, Carbon dioxide and Smoke

FIRE-FIGHTING EQUIPMENT : Wear full bunker gear including a positive pressure self-contained breathing apparatus in case of burning in large quantities.

SECTION 6 ACCIDENTAL 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.

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.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES: ACGIH TLV= 10mg/m³(Total dust)
OSHA PEL= 15mg/m³(Total dust), 5mg/m³(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 : No precautions should be needed under normal use.

EYE PROTECTION : No precautions should be needed under normal use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Black fine powder
ODOR : None
pH : Not applicable
VAPOR PRESSURE (mg Hg.) : Not applicable
VAPOR DENSITY (AIR = 1) : Not applicable
% VOLATILE : Not applicable
BOILING POINT (°C) : Not applicable
MELTING POINT (°C) : Not applicable
SOLUBILITY IN WATER : Negligible
SPECIFIC GRAVITY (H₂O=1) : 1.6

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.

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group.

But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposure.

SECTION 12 ECOLOGICAL INFORMATION

No data available.

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.

SECTION 15 REGULATORY INFORMATION

USA Information:

All chemical substances in this product comply with all applicable rules or orders under TSCA.

Australia Information:

Not classified as hazardous according to criteria of NOHSC.

SECTION 16 OTHER INFORMATION

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.

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.