

# Panasonic Communications Co., Ltd.

## Digital Imaging Company

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### Material Safety Data Sheet

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MSDS No.: 021-000351

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#### SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner, Toner Cartridge UG-3313 for Panasonic Facsimile machine  
Models UF-550, UF-560, UF-770, UF-880, DF-1100, UF-885, UF-895,  
DX-1000 and DX-2000  
Product No. : UG-3313 Toner

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#### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (Common Name)	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
• Styrene acrylate copolymer		59.0	None established	None established	None
• Iron oxide		38.0	None established	None established	None
• Polypropylene		3.0	None established	None established	None

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#### 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

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

##### FIRE AND EXPLOSION

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

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SECTION 4 FIRST AID MEASURES

EYES: Flush eyes immediately with plenty of water for at least 15 minutes.

SKIN: Flush with plenty of water. Use soap.

INHALATION: Remove to fresh air. If effects occur, consult medical personnel.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper handling.

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SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: Not applicable.

FLAMMABLE LIMITS: Not applicable.

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

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

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SECTION 6 ACCIDENTIAL RELEASE MEASURES

Minimize the release of particulate. Wear personal protective equipment. Do not use vacuum cleaner.

After by lightly spraying with water to prevent development of dust, spills should be swept up or wiped up. Then residuals can be removed with soap and water. Preferred to use the material in a place, covering up the floor and surrounding matters with suitable sheets such as paper, in a case of being not fit to scrub the floor with water. These used sheets should be wrapped up in spills and transfer into a suitable container for disposal.

Garments may be washed or dry-cleaned, after removal of loose toner.

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SECTION 7 HANDLING AND STORAGE

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 for most conditions.

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

May toners be preferred to use or to handle at the suitable place without concerning about smudges to which are given rise by releasing them.

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS : TLV=10mg/m<sup>3</sup> (as total dust/ACGIH)

ENGINEERING CONTROLS : None required under normal use.

VENTILATION : None required under normal use.

RESPIRATORY PROTECTION : For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION : None required under normal use.

EYE PROTECTION : None required under normal use.

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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  
VAPOR DENSITY (AIR = 1) : Not applicable  
EVAPORATION RATE : Not applicable  
BOILING POINT (°C) : Not applicable  
MELTING POINT (°C) : No data available  
SOLUBILITY IN WATER : Negligible  
SPECIFIC GRAVITY (H<sub>2</sub>O=1) : 1.6

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SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.  
INCOMPATIBILITY : None  
HAZARDOUS DECOMPOSITION PRODUCTS: CO or NO<sub>x</sub> (by high heat and fire)  
HAZARDOUS POLYMERIZATION : Will not occur.

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SECTION 11 TOXICOLOGICAL INFORMATION

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 a study in rats 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 exposures.

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SECTION 12 ECOLOGICAL INFORMATION

No data available.

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SECTION 13 DISPOSAL CONSIDERATION

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

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SECTION 14 TRANSPORT INFORMATION

This is not a hazardous product.

UN CLASS : None allocated.

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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.

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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.