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**Material Safety Data Sheet**

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MSDS No.: 021-000352

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SECTION 1 PRODUCT IDENTIFICATION

Product Name : OPC Drum, Toner Cartridge UG-3313 for Panasonic Facsimile machine Models UF-550,UF-560,UF-770,UF-880,DF-1100,UF-885,UF-895,UF-890,UF-990,DX-1000 and DX-2000.  
Product No. : UG-3313 OPC DRUM

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SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS #</u>	<u>PROPORTION (% by wt.)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OTHER LIMITS</u>
· Aluminum alloy		95.0 - 98.0	Total: 15 mg/m <sup>3</sup> Respire: 5 mg/m <sup>3</sup>	None established	None
· Titanium dioxide	13463-67-7	0.5 - 2.0	Total: 15 mg/m <sup>3</sup>	None established	None
· Binder resin		0.5 - 2.0	None established	None established	None
· Organic semiconductor		0.3 - 0.8	None established	None established	None

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SECTION 3 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW : Light gray colored aluminum cylinder, with no odor.

POTENTIAL HEALTH EFFECTS:

EYE EFFECTS : Not applicable under intended use.

SKIN EFFECTS : No corroding or irritating effect is expected at usual use as a photosensitive drum.

INGESTION EFFECTS : Not applicable under intended use.

INHALATION EFFECTS : Not applicable under intended use.

CHRONIC EFFECTS : Not identified.

MEDICAL CONDITIONS GENERALLY KNOWN TO BE AGGRAVATED BY EXPOSURE:  
Not identified.

SECTION 4 FIRST AID MEASURES

EYE CONTACT : Not applicable under intended use.

SKIN CONTACT : Wash with soap and water.

INHALATION : Not applicable under intended use.

INGESTION : Not applicable under intended use.

NOTE TO PHYSICIANS : None

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SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT : Not applicable.

FLAMMABLE LIMITS : Not applicable.

EXTINGUISHING MEDIA : Dry chemical, CO<sub>2</sub>, Foam or water.

HAZARDOUS COMBUSTION PRODUCTS : CO, CO<sub>2</sub>

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

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SECTION 6 ACCIDENTIAL RELEASE MEASURES

METHOD FOR CLEANING UP : Not applicable under intended use.

PERSONAL PRECAUTIONS : Not applicable under intended use.

ENVIRONMENTAL PRECAUTIONS : Not applicable under intended use.

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SECTION 7 HANDLING AND STORAGE

HANDLING : None of safe handling advice.

STORAGE : Keep at temperature not exceeding 45 °C.

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES : None.

ENGINEERING CONTROLS : Not required.

RESPIRATORY PROTECTION : Not required.

SKIN PROTECTION : Not required.

EYE PROTECTION : Not required.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Light gray colored aluminum cylinder  
ODOR : No odor  
pH : Not applicable  
VAPOR PRESSURE (mm Hg.) : Negligible  
VAPOR DENSITY (AIR = 1) : Not applicable  
EVAPORATION RATE : Not applicable  
BOILING POINT (°C) : Not applicable  
MELTING POINT (°C) : 100 °C or higher  
SOLUBILITY IN WATER : Negligible  
SPECIFIC GRAVITY (H<sub>2</sub>O=1) : No data available

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SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.  
No conditions to avoid.  
MATERIALS TO AVOID : None  
HAZARDOUS DECOMPOSITION : None  
HAZARDOUS POLYMERIZATION : Will not occur.  
No conditions to avoid.

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SECTION 11 TOXICOLOGICAL INFORMATION

INHALATION : No data available.  
INGESTION : No data available.  
EYE : No data available.  
SKIN : No data available.  
SENSITIZATION : No data available.  
MUTAGENICITY : Ames Test : Negative (Test strains : S.typhimurium)  
REPRODUCTIVE TOXICITY : No data available.  
CARCINOGENICITY : No carcinogen or potential carcinogen, according to IARC  
Monographs, NTP, OSHA(USA) regulation and EU Directive.  
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE : None

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SECTION 12 ECOLOGICAL INFORMATION

No data available.

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SECTION 13 DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD : No special disposal technique required. Dispose of in accordance with federal, state and local environmental control regulations.

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SECTION 14 TRANSPORT INFORMATION

UN # : None.

UN SHIPPING NAME : None.

UN CLASSIFICATION : None.

UN PACKING GROUP : None.

SPECIAL PRECAUTIONS : None.

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SECTION 15 REGULATORY INFORMATION

None.

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SECTION 16 OTHER INFORMATION

None.

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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.