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Graphic Communication Products Division

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Material Safety Data Sheet

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MSDS No.: 021-000032

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SECTION 1 PRODUCT IDENTIFICATION

Product Name : OPC DRUM, Toner Cartridge UG-3350 for Facsimile machines
UF-585, UF-595

Product No. : UG-3350 OPC DRUM

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		94.0 - 98.0	Not applicable for drum	Not applicable for drum	None
Titanium dioxide	13463-67-7	0.5 - 2.0	Not applicable for drum	Not applicable for drum	None
Binder resin		0.5 - 2.0	Not applicable for drum	Not applicable for drum	None
Organic semiconductor		0.3 - 0.8	Not applicable for drum	Not applicable for drum	None

SECTION 3 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW : Greenish blue 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 : Flush with plenty of water
SKIN CONTACT : In case of contact, wash with soap and water.
INHALATION : If needed, get medical attention.
INGESTION : If needed, get medical attention.
NOTE TO PHYSICIANS : None

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Dry chemical, CO₂, Foam or water.
UNSUITABLE EXTINGUISHING MEDIA: None
SPECIAL FIRE FIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: None
FLASH POINT (°C): Not applicable.
FLAMMABLE LIMITS : Not applicable.
AUTOIGNITION TEMPERATURE (°C): Not applicable.
FLAMMABILITY: Not applicable.
AUTOFLAMMABILITY: None
EXPLOSIVE PROPERTIES: None
OXIDIZING PROPERTIES: None
HAZARDOUS COMBUSTION PRODUCTS : CO, CO₂
OTHER PROPERTIES: None

SECTION 6 ACCIDENTAL 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.

SECTION 7 HANDLING AND STORAGE

HANDLING : None of safe handling advice.

STORAGE : Keep at temperature not exceeding 45 °C.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES : None.
ENGINEERING CONTROLS : Not required.
RESPIRATORY PROTECTION : Not required.
SKIN PROTECTION : Not required.
EYE/FACE PROTECTION : Not required.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Greenish blue colored aluminum cylinder
ODOR : No odor
pH : Not applicable
BOILING POINT (°C): Not applicable
MELTING POINT (°C): 100 °C or higher
DECOMPOSITION TEMPERATURE (°C): No data available
VAPOR PRESSURE (mm Hg.) : Negligible
VAPOR DENSITY (AIR = 1) : Not applicable
DENSITY/ SPECIFIC GRAVITY (H₂O=1) : No data available
SOLUBILITY IN WATER : Negligible
FAT SOLUBILITY : Partially soluble in ketones, esters and aromatic solvents
PARTITION COEFFICIENT (n-Octanol/water) : Not soluble in water and n-octanol
PERCENT VOLATILE : Negligible
EVAPORATION RATE : Not applicable

SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.
CONDITIONS TO AVOID : None
MATERIALS TO AVOID : None
HAZARDOUS DECOMPOSITION PRODUCTS : None
HAZARDOUS POLYMERIZATION : Will not occur.
CONDITIONS TO AVOID : None

SECTION 11 TOXICOLOGICAL INFORMATION

INHALATION : No data available.
INGESTION : (Data from similar drum): LD50: >200mg/Kg(rats)
EYE : No data available.
SKIN : No data available.
SENSITIZATION : No data available.
MUTAGENICITY : (Data from similar drum): Negative (Ames Test: Salmonella typhimurium)
REPRODUCTIVE TOXICITY : No data available.
CARCINOGENICITY : No human carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA(USA) regulation, California Proposition 65 and EU Directive.
Orters : None

SECTION 12 ECOLOGICAL INFORMATION

No information indicating any adverse ecological effects.

SECTION 13 DISPOSAL CONSIDERATION

METHOD OF DISPOSAL : Dispose under conditions which meet all federal, state and local environmental control regulations.

SECTION 14 TRANSPORT INFORMATION

UN # : None.
UN SHIPPING NAME : None.
UN CLASSIFICATION : None.
UN PACKING GROUP : None.
SPECIAL PRECAUTIONS : None.

SECTION 15 REGULATORY INFORMATION

EU INFORMATION :
INFORMATION ON THE LABEL: Not required.
SPECIFIC PROVISION IN RELATION OF MAN OR THE ENVIRONMENTAL : Not regulated.

USA INFORMATION :
INFORMATION ON THE LABEL: Not required.
SARA Title 3 §313 : None.
CARIFORNIA PROPOSITION 65 : None.

SECTION 16 OTHER INFORMATION

Abbreviation:
"EU" stands for European union.
"OSHA PEL" stands for PEL (Permissible Exposure Limit) under Occupational safety and Health Administration.
"ACGIH TLV" stands for TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
"IARC" stands for International Agency for Research on Cancer.
"NTP" stands for National Toxicology Program (USA).

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.