



Product Engineering - 50 Meadowland Parkway, Panazip 2F-4, Secaucus, NJ 07094

Material Safety Data Sheet

Published on - September 18, 2001

The following 8 pages contain the Material Safety Data Sheet (MSDS) for the Toner and OPC Drum used for Panafax UF-890 and UF-990.

The applicable Product Order Number is:

- **UG-5520** - Toner Cartridge (**Toner** and **OPC Drum**).

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Material Safety Data Sheet

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MSDS No.: 021-000167

Date : 18th September, 2001

SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner, Toner Cartridge UG-5520 for Panasonic Facsimile machine
Models UF-890 and UF-990

Product No. : UG-5520 Toner

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (Common Name)	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
• Styrene acrylate copolymer	27136-15-8	> 56.0	None established	None established	None
• Iron oxide	1317-61-9	< 40.0	None established	None established	None
• Polypropylene	9010-79-1	< 4.0	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

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

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.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: No data available

FLAMMABLE LIMITS: No data available

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

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

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.

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.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS : TLV=10mg/m³ (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.

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 (H₂O=1) : 1.6

SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.

INCOMPATIBILITY : None

HAZARDOUS DECOMPOSITION PRODUCTS: CO or NO_x (by high heat and fire)

HAZARDOUS POLYMERIZATION : Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Mutagenicity: Negative in the Ames Test
Carcinogenicity: No data available
Chronic Effects: No data available

SECTION 12 ECOLOGICAL INFORMATION

No data available.

SECTION 13 DISPOSAL CONSIDERATION

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

SECTION 14 TRANSPORT INFORMATION

This is not a hazardous product.

UN CLASS : None allocated.

SECTION 15 REGULATORY INFORMATION

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

SECTION 16 OTHER INFORMATION

NFPA Rating: Health = 1, Flammability = 1, Reactivity = 0

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product described in terms of the legal warranty.

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.

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MSDS No.: 021-000168

Date : 18th September, 2001

SECTION 1 PRODUCT IDENTIFICATION

Product Name : OPC Drum, Toner Cartridge UG-5520 for Panasonic Facsimile machine Models UF-890 and UF-990

Product No. : UG-5520 OPC DRUM

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
• Aluminum alloy		95.0 - 98.0	Total: 15 mg/m ³ Respire: 5 mg/m ³	None established	None
• Titanium dioxide	13463-67-7	0.5 - 2.0	Total: 15 mg/m ³	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

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

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT : Not applicable.

FLAMMABLE LIMITS : Not applicable.

EXTINGUISHING MEDIA : Dry chemical, CO₂, Foam or water.

HAZARDOUS COMBUSTION PRODUCTS : CO, CO₂

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

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.

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 PROTECTION : Not required.

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 (H₂O=1) : No data available

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.

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

SECTION 12 ECOLOGICAL INFORMATION

No data available.

SECTION 13 DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD : No special disposal technique required. Dispose of in accordance with 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

None.

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.