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Material Safety Data Sheet

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MSDS No.: 021-000355

Date : 6 January, 2003

SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner of UG-3221 and UG-3222 Toner Cartridge, UG-3220 Drum Unit for Panasonic Facsimile machine Model UF-490

Product No. : Toner of UG-3221 and UG-3222 Toner Cartridge, UG-3220 Drum 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		< 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 : Flush eyes immediately with plenty of water for at least 15 minutes.

SKIN CONTACT : Flush with plenty of water. Use soap.

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

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

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 ACCIDENTAL RELEASE MEASURES

Minimize the release of particles. 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

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 for most conditions.

STORAGE : 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 releasing them.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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 : 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

None

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

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

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

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.