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Material Safety Data Sheet

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MSDS No.: 021-000343

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SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner, Toner kit UG-3202 for Panasonic Facsimile machine Model UF-733
Product No. : UG-3202 Toner

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (Common Name)	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
• Styrene acrylate polymer		> 88	None established	None established	None
• Carbon black	1333-86-4	< 5	3.5mg/m ³	3.5mg/m ³	None
• Polypropylene		< 5	None established	None established	None
• Chromium/azo dye complex		< 2	None established	None established	None

SECTION 3 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW : Fine black powder.

POTENTIAL HEALTH EFFECTS:

- EYE EFFECTS : Mild irritant.
- SKIN EFFECTS : None currently known.
- INGESTION EFFECTS : May be harmful if swallowed.
- INHALATION EFFECTS : Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust. May cause cough and rise phlegm.
- CHRONIC EFFECTS : Not aware of any health effects associated with toner under its intended use.
- CARCINOGENICITY : Carbon black is reclassified as a group 2B by IARC, but inhalation test using a typical toner showed no association between toner and animal tumors.

SECTION 4 FIRST AID MEASURES

EYE CONTACT : Flush with enough water.

SKIN CONTACT : Wash with soap and water.

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

IF SWALLOWED : Dilute stomach contents with several glasses of water.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT : Not applicable.

FLAMMABLE LIMITS : Not applicable.

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

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Minimize the release of particles. Wear personnel protective equipment. Sweep up or vacuum spilled toner and carefully transfer into sealed container. Sweep slowly to minimize generation of dust during cleanup. If a vacuum is used, the motor should be rated as dust tight. Residue can be removed with soap and water. 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 of most conditions.

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

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS : ACGIH TLV= 10mg/m³(Total dust)
OSHA PEL= 15mg/m³(Total dust), 5mg/m³(Respirable dust)

ENGINEERING CONTROLS : None required under normal use.

VENTILATION : Good general ventilation is recommended.

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) : less than 1.12

SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.
INCOMPATIBILITY : None
HAZARDOUS DECOMPOSITION : CO or NO_x (by high heat and fire)
HAZARDOUS POLYMERIZATION : Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

INHALLATION: Not applicable
EYES: Not applicable
INGESTION: The LD_{L0} to rats was less than 2000 mg/kg.
MUTAGENICITY: Negative in the Ames test.

CARCINOGENICITY:

In 1996, the IARC reevaluated carbon black as a GROUP 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-year cancer bio-assay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

CHRONIC EFFECTS:

In study in rats (H. Muhle) 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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. But no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposure.

SECTION 12 ECOLOGICAL INFORMATION

No data available.

SECTION 13 DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD : Dispose of in accordance with federal, state and local environmental regulations. Incineration is preferred method.

SECTION 14 TRANSPORT INFORMATION

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 = 0

REFERENCES:

IARC(1996) IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 65, Printing Process and Printing Inks, Carbon Black and Some Nitro Componds. Lyon, PP.149-261.

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.