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**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE  
AND OF THE COMPANY / UNDERTAKING**

PRODUCT NAME : Toner of Toner Cartridge for Panasonic Multi-Function Printer,  
Model KX-MB2000 series

PRODUCT NUMBER : KX-FAT411X, KX-FAT411E, KX-FAD412X, KX-FAD412E

RECOMMENDED USE : Toner for electrophotographic printing apparatus

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**SECTION 2 HAZARDOUS IDENTIFICATION**

EMERGENCY OVERVIEW : Black fine powder, slight plastic odor.  
Not a highly flammable, but when suspended in air, is  
combustible as with most organic powders.

GHS CLASSIFICATION : Classification not possible

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS : Not required

SIGNAL WORD : Not required

HAZARD STATEMENTS : Not required

OTHER HAZARDS : None

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

SUBSTANCE OR MIXTURE : Mixture

INGREDIENTS(Common Name)	PROPORTION(% by wt.)	CAS #	EC #
♦ Polyester resin	Confidential	Confidential	-
♦ Carbon Black	Confidential	1333-86-4	215-609-9
♦ Other components	Confidential		

**SECTION 4 FIRST AID MEASURES**

INHALATION : Remove to fresh air and keep at rest in a position comfortable for  
breathing.

INGESTION : Call a POISON CENTER or doctor/physician if you feel unwell.

SKIN CONTACT : Gently wash with plenty of water and soap.

EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact  
lenses, if present and easy to do. Continue rinsing.

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### **SECTION 5 FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA : Water spray, powder  
NOT SUITABLE EXTINGUISHING MEDIA : No information available  
SPECIFIC HAZARDS : May produce irritating or toxic gases in a fire.  
SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media.  
Fight fire from upwind position if possible.  
PROTECTION OF FIRE FIGHTERS : Use goggles in combination with dust mask, and other protections as appropriate to situation.

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### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE :  
Use mask, goggles and protective gloves.  
Large spills : Remove person to safety. Ensure adequate ventilation. Treat from upwind position.  
ENVIRONMENTAL PRECAUTIONS : Do not discharge into the drains, surface waters or ground water directly.  
METHODS FOR CLEANING UP : Prevent dispersion of dust. Sweep or vacuum by dust-explosion-proof type cleaner.  
PREVENTION OF SECONDARY HAZARDS : No information available

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### **SECTION 7 HANDLING AND STORAGE**

#### HANDLING

TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
PRECAUTIONS : Avoid inhalation of fine dust.  
SAFE HANDLING ADVICE : Use an adequate ventilation. Wash thoroughly after handling. If needed, use personal protective equipment as required. Prevent generation of dust.  
This material may cause risk of dust explosion.

#### STORAGE

SUITABLE STORAGE CONDITIONS : Keep container tightly closed. Protect from sun. Store in a well-ventilated room (under 40°C). Store locked up.  
SAFE PACKAGING MATERIALS : No information available

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### **SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Use local exhaust ventilation, in case of generation of dust.

#### LIMIT VALUES

ACGIH (TLV): 3.5 mg/m<sup>3</sup> TWA [Carbon black]  
10 mg/m<sup>3</sup> TWA (inhalable particles, recommended); 3 mg/m<sup>3</sup> TWA (respirable particles, recommended) [Particulates (insoluble or poorly soluble) not otherwise specified (PNOS)]  
OSHA (PEL): 3.5 mg/m<sup>3</sup> TWA [Carbon black]  
15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction) [Particulates not otherwise regulated]

#### PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : Use dust mask, as appropriate to situation.  
HAND PROTECTION : Rubber gloves  
EYE PROTECTION : Safety glasses  
SKIN AND BODY PROTECTION : Full-body suit  
HYGIENE MEASURES : No information available

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## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

### APPEARANCE

PHYSICAL STATES : Pulverizing powder

COLOUR : Black

ODOUR : Odourless

pH : Not applicable

### SPECIFIC TEMPERATURES/TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT : No information available

MELTING POINT : No information available

FLASH POINT : Not applicable

### FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS : No information available

VAPOUR PRESSURE : No information available

VAPOUR DENSITY : No information available

DENSITY (SPECIFIC GRAVITY): 1.2 g/mL (20°C) (68°F)

### SOLUBILITY

WATER SOLUBILITY : Insoluble

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

PARTITION COEFFICIENT: n-OCTANOL / WATER (log Pow): No information available

AUTO-IGNITION TEMPERATURE : No information available

DECOMPOSITION TEMPERATURE : No information available

ODOUR THRESHOLD : No information available

EVAPORATION RATE : No information available

FLAMMABILITY (SOLID,GAS): No information available

VISCOSITY : No information available

OTHER DATA : No information available

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## **SECTION 10 STABILITY AND REACTIVITY**

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS : Stable.

CONDITIONS TO AVOID : No information available

INCOMPATIBLE MATERIALS : No information available

HAZARDOUS DECOMPOSITION PRODUCTS : No information available

OTHERS : No information available

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## **SECTION 11 TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY : No data

SKIN CORROSION/IRRITATION : No data

SERIOUS EYE DAMAGE/IRRITATION : No data

SKIN SENSITISATION : No data

### REPEATED DOSE TOXICITY :

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/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m<sup>3</sup>) exposure group.

But no pulmonary change was reported in the lowest (1mg/m<sup>3</sup>) exposure group, the most relevant level to potential human exposure.

**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 bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

MUTAGENICITY : No data  
REPRODUCTIVE TOXICITY : Not available

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**SECTION 12 ECOLOGICAL INFORMATION**

ECOTOXICITY : No information available  
PERSISTENCE / DEGRADABILITY : No information available  
MOBILITY IN SOIL : No information available  
BIOACCUMULATIVE POTENTIAL : No information available  
OTHER ADVERSE EFFECTS : No information available

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**SECTION 13 DISPOSAL CONSIDERATION**

Review "HANDLING AND STORAGE (Section 7)".  
Passed to a licensed waste contractor. This product may cause risk of dust explosion.  
Dispose of waste in accordance with local, state and federal regulations.

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**SECTION 14 TRANSPORT INFORMATION**

Follow all regulations in your country or region  
INTERNATIONAL REGULATIONS  
UN CLASS / UN NUMBER : Not applicable  
DOT, IMO or IATA : Not hazardous classification  
SPECIAL PRECAUTIONS FOR USER : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".  
Review "HANDLING AND STORAGE (Section 7)".  
Ensure containers without breakage or leakage.  
Ensure containers tightly fixed.  
Follow all regulations in your country or region.  
Avoid heating (keep under 40°C).

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**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.  
EU INFORMATION :  
(EC) No 1907/2006 : AUTHORISATION ON USE : Not regulated  
RESTRICTIONS ON USE : Not regulated  
(EC) No 1272/2008 : CLASSIFICATION : None  
HAZARD CLASS : None  
HAZARD STATEMENT : None

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**SECTION 16 OTHER INFORMATION**

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REFERENCE :

- Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)
- International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)
- IARC(2010) IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93, Carbon Black, Titanium Dioxide and Talc. Lyon FRANCE, PP.193-276.
- 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.

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