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Material Safety Data Sheet

Page: 1 of 4

MSDS No.: 021-001316

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SECTION 1 PRODUCT IDENTIFICATION

PRODUCT NAME : Black Toner for Panasonic Color Laser Printer / Multi-Function Printer

PRODUCT NUMBER : Toner Cartridge / KX-FATK504, KX-FATK504A, KX-FATK504E, KX-FATK509, KX-FATK509A, KX-FATK509A7, KX-FATK509AT, KX-FATK509E, KX-FATK509H, KX-FATK509X, KX-FATK464CN, KX-FATK469CN, DQ-TUA04K, DQ-UR1K, DQ-UR3K, KX-CLTK1, KX-CLTK1B, KX-CLTK3
Print Cartridge / KX-FACK484CN, KX-FACK489CN, DQ-UP1K, DQ-UP3K, KX-CLPK1, KX-CLPK3

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE or PREPARATION : Preparation

INGREDIENTS	CAS #	PROPORTION			
		(% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
· Polyester resin		80 - 90	None established	None established	None
· Wax		5 - 10	None established	None established	None
· Carbon black	1333-86-4	1 - 5	3.5 mg/m3	3.5 mg/m3	None
· Amorphous silica	68909-20-6	< 3	80 mg/m3	10 mg/m3	None
· Charge control agent		< 3	None established	None established	None
· Charge control agent	31714-55-3	< 3	0.5 mg/m3	0.5 mg/m3	None
· Organic pigment		< 3	None established	None established	None

SECTION 3 HAZARDOUS IDENTIFICATION

POTENTIAL HEALTH EFFECTS :

EYES : Solid or dusts may cause irritation or corneal injury due to mechanical action.

SKIN CONTACT : Essentially nonirritating to skin.

SKIN ABSORPTION : Skin absorption is unlikely due to physical properties.

INGESTION : Oral toxicity is believed to be low. Considered to be physiologically inert.

INHALATION : Minimal irritation to respiratory track may occur.

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 exposure and animal tumors.

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.

INGESTION : If irritation or discomfort occurs, consult medical personnel.

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

SECTION 5 FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES :
FLASH POINT : No data available
EXTINGUISHING MEDIA : Water fog, foam, CO₂, dry chemical.
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

PERSONAL PRECAUTIONS : None
ENVIRONMENT PRECAUTIONS : None
METHODS FOR CLEANING UP : Wipe off with paper or cloth.

SECTION 7 HANDLING AND STORAGE

HANDLING :
TECHNICAL MEASURES : None
PRECAUTIONS : None
SAFE HANDLING ADVICE : Try not to disperse the particles.
STORAGE :
TECHNICAL MEASURES : None
STORAGE CONDITIONS : Keep container closed. Store in a cool and dry place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES :
VENTILATION : None required with intended use.
CONTROL PARAMETERS (As total dust):
ACGIH-TLV(USA): 10mg/m³
(ACGIH : American Conference of Government Industrial Hygienists)
PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION : No precautions should be needed under normal use.
HAND PROTECTION : No precautions should be needed under normal use.
EYE PROTECTION : No precautions should be needed under normal use.
SKIN PROTECTION : No precautions should be needed under normal use.
OTHER : For use other than normal customer-operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required.
HYGIENE MEASURES : Wash hands after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Black fine powder
ODOR : None
PARTICLE SIZE (µm): 5 - 15
MELTING POINT (°C): No data available
SOFTENING POINT (°C): 100 - 150
BOILING POINT (°C): Not applicable
FREEZING POINT (°C): Not applicable
SP. GRAVITY (g/cm³): 1.2
BULK DENSITY (g/cm³): 0.4
VAPOR PRESSURE (mm Hg.): Not applicable
VAPOR DENSITY (AIR = 1): Not applicable
SOL IN WATER : Negligible
pH : Not applicable
EXPLOSION PROPERTIES: No data available
FLAMMABILITY : No data available

SECTION 10 STABILITY AND REACTIVITY

STABILITY : This is a stable product.
INCOMPATIBILITY : (SPECIAL MATERIALS TO AVOID) None
HAZARDOUS DECOMPOSITION PRODUCTS : CO, CO₂ or NO_x (by high heat and fire)
HAZARDOUS POLYMERIZATION : Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS FROM EXPOSURE : No symptoms expected with intended use.

TOXICOLOGICAL DATA :

ACUTE ORAL TOXICITY : LD₅₀(Rat): >2000 mg/kg ¹⁾
EYE IRRITATION : No Data
SKIN IRRITATION : Non-irritant(Rabbit) ¹⁾
SKIN SENSITISATION : Non-sensitive(Guinea Pig) ¹⁾
INHALATION TOXICITY : No Data

MUTAGENICITY : Ames test : Negative

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.

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.

1) This information is based on toxicity data for similar materials and ingredients.

SECTION 12 ECOLOGICAL INFORMATION

MOBILITY : No data are available on the adverse effects of this material on the environment.
BIOACCUMULATION : No data are available on the adverse effects of this material on the environment.
ECOTOXICITY : No data are available on the adverse effects of this material on the environment.

SECTION 13 DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD :

Waste must be disposed of in accordance with country and local environmental control regulations. Incineration is preferred method.

SECTION 14 TRANSPORT INFORMATION

TRANSPORT INFORMATION : This is not a hazardous product.
UN No. : 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
(NFPA: The National Fire Protection Agency (USA))

USER'S RESPONSIBILITY :

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation must be examined if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.
