SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : T-1900 Black Toner
Used for : for TOSHIBA Facsimile e-STUDIO 190F
Company Name : Toshiba TEC Corporation
Address : 2-17-2, Higashigotanda, Shinagawa-ku, Tokyo, 141-8664, Japan
Telephone Number : +81-3-6422-7753

Contact : (1) Toshiba America Information Systems, Inc.
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SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS No.	wt.%
Styrene acrylate copolymer	-------	> 86
Carbon Black	1333-86-4	< 6
Polypropylene	-------	< 3
Amorphous silica*	-------	< 3
Iron oxide	-------	< 2
	-------	Trade Secret

*:See [Section 15]

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW :
Odorless black fine powder.
Not a highly flammable, but when suspended in air, is combustible as with most organic powders.
CARCINOGENICITY :
Carbon black is reclassified as a group 2B by IARC, but inhalation test using a typical toner showed no association between toner an d animal tumors.
POTENTIAL HEALTH EFFECTS
EYES : Solid or dusts may cause irritation o
SKIN CONTACT : 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 STATIC 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. Get medical attention.
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

FLAMMABLE PROPERTIES

Flash Point	:	No data available
Flammable Limits		
Explosion Limits(Upper)	:	No data available
Explosion Limits(Lower)	:	No data available
Extinguishing Media	:	Foam, CO2, dry chemical.
Fire Fighting Procedures	:	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 particulates. 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. Store in 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

CONTROL PARAMETERS

OSHA PELs (TWA)

as the product	:	15mg/m^3 (Total dust) 5mg/m^3 (Respirable fraction)
Carbon black	:	3.5 mg/m^3
Amorphous silica	:	20mppcf
Other substances	:	Not listed

ACGIH TLVs (TWA)

as the product	:	10mg/m^3 (Total dust) 3mg/m^3 (Respirable fraction)
Carbon black	:	3.5 mg/m^3
Amorphous silica	:	10mg/m3
Other substances	:	Not listed

Eye Protection	: No precautions should be needed under normal use.
Protective Gloves	: No precautions should be needed under normal use.
Respiratory Protection	: In dusty atmospheres, use an approved dust respirator.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Odorless black fine powder
Odor	: None
Boiling Point	: Not applicable
Vapor Pressure	: Not applicable
Vapor Density (Air=1)	: Not applicable
Solubility in Water	: Insoluble
Specific Gravity (H2O=1)	: Approx. 1.10 g/cm3
Softting Point	: No data
pH Value	: Not applicable
Volatile (%)	: Not applicable

SECTION 10 STABILITY AND REACTIVITY

Stability : This is a stable product.

INCOMPATIBILITY (SPECIAL MATERIALS TO AVOID)

: Oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

: Carbon oxides, hydrocarbons (by high heat and fire)

HAZARDOUS POLYMERIZATIC : Will not occur

SECTION 11 SUPPLEMENTAL HEALTH INFORMATION

MUTAGENICITY : Negative in the Ames test
(Estimated from the data of constituent components)

CARCINOGENICITY :

In 1996, the IARC revaluated 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.

CHRONIC EFFECTS :

In study in rats (H.Muhle) by chronic inhalation exposure to typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of rats in the concentration (16 mg/m3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/m3) exposure group. But no pulmonary change was reported in the lowest (1 mg/m3) exposure group, the most relevant level to potential human exposures.

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 TRANSPORTATION INFORMATION

Transport Information : This is not a hazardous product.

UN Classification Number : None allocated.

SECTION 15 REGULATORY INFORMATION

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

* Amorphous silica is exemption from TSCA registration requirements under 40CFR 720.30(h)(7) which exempts "new chemicals formed incidental to use of certain additives intended solely to impart specific physiochemical characteristic.

EU : None

IARC : See section 11.

SECTION 16 OTHER INFORMATION

Hazardous Materials Information Systems (HMIS) :

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 1

(0 = insignificant, 1 = slight)

Paraffin is not hazardous except for its flammable properties, but "Paraffin wax fume" is one of hazardous chemicals. Its ACGIH TLVs (TWA) and NIOSH RELs (TWA) is the same value (2 mg/m3).

References : IARC (1996) IARC Monographs on the Evaluation of the Carcinogenic Risks of Chemicals to Humans, Vol. 65, Printing Processes and Printing Inks, Carbon Black and Some Nitro Compounds, 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.

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