SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : T-FC50T-K
Used for : Toshiba MFP e-STUDIO 2555C/3055C/3555C/4555C/5055C
Company Name : Toshiba TEC Corporation
Address : Gate City Ohsaki West Tower
1-11-1, Ohsaki, Shinagawa-ku, Tokyo, 141-0032, Japan
Telephone Number : +81-3-6830-9100
Manufacturer Name : (1) Toshiba Tec Information Systems (ShenZhen) Co.,Ltd
No.7,9,28 DaYang Road, FuYong Streets, BaoAn District,
ShenZhen, GuangDong, P.R.CHINA

Contact : (1) Toshiba Tec Information Systems(ShenZhen)Co.,Ltd
Emergency Telephone. No. : +86-755-27311901
For calls within China only.

(2) TAISHIBA INTERNATIONAL CO.,LTD.
Telephone. No. : +886-2-2718-7879 Ext.2750
For calls within Taiwan only.

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview : If used as intended, the product does not present acute or chronic health hazard.
Physical Hazards : This product is not classified as flammable or combustible.
It will burn in case of fire.
Avoid contact with strong oxidizers such as chromate, bromate and nitrates.
Routes of Exposure : Inhalation, dermal contact, incidental ingestion
Inhalation : Excessive inhalation may cause irritation of the nose, throat and respiratory tract.
Eye Contact : Non-irritant.
Dermal Contact : Non-irritant, non-sensitiser.
Ingestion : Not currently known.
Chronic Effects : See Section 11 Supplemental Health Information.
Carcinogenicity : See Section 11 Supplemental Health Information.
Reproductive/Developmental : Not identified.
Target Organs : Prolonged breathing of high concentrations may cause adverse effects on the respiratory system.
Signs and Symptoms of Exposure
: Prolonged exposure to dusts of this product may irritate the respiratory system.
Medical Conditions Aggravated by Exposure to This Product
: Respiratory disorders, such as asthma, may be aggravated by prolonged exposure to high concentrations of this product.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS No.	wt.%
Polyester resin	- - -	80-89
Carbon black	1333-86-4	4-7
Wax	- - -	4-7
Amorphous Silica	7631-86-9	3-6
Titanium dioxide	13463-67-7	0.1-0.9
	- - -	TRADE SECRET

Ingredients Information

Chemical Name : Carbon Black (1333-86-4)

OSHA Z-Tables (USA)	: 3.5mg/m3	ACGIH-TLV	: 3.5mg/m3
NTP (USA)	: Not listed	IARC Monograph	: Group 2B
Symbol (EU)	: Not listed	R-Phrase (EU)	: Not listed
DFG-MAK	: III 3B	OELs-TWA (Australia)	: 3.0mg/m3
California Proposition 65 (USA)	: Listed		

Chemical Name : Titan Oxide (13463-67-7)

OSHA Z-Tables (USA)	: 15mg/m3	ACGIH-TLV	: 10mg/m3
NTP (USA)	: Not listed	IARC Monograph	: Group 2B
Symbol (EU)	: Not listed	R-Phrase (EU)	: Not listed
DFG-MAK (GER)	: Not listed	OELs-TWA (Australia)	: 10mg/m3

SECTION 4 FIRST AID MEASURES

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.

Skin Contact : Wash with soap and water. Wash clothing before reuse. If irritation occurs or is persistent, seek medical attention.

Ingestion : Dilute stomach contents with several glasses of water.

Inhalation : Remove from exposure area to fresh air immediately. Contact a physician if there is any difficulty in breathing or other signs of distress.

SECTION 5 FIRE FIGHTING MEASURES

General Hazard : Product will burn in case of fire.

Flash Point : Not applicable

Flammable Limits : Not applicable

Autoignition Temperature : Not applicable

Flammability classification : Not applicable

Extinguishing Media : Foam, halon, carbon dioxide, dry chemical & water fog.

Unusual Fire & Explosion Hazard

: Combustible powder. Dust of this product at sufficient concentrations can form explosive mixtures with air.

Fire Fighting Procedures : None

Hazardous Combustion Products

: Carbon monoxide, carbon dioxide and smoke.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spills or Leaks : Vacuum-clean spilled toner and carefully transfer into sealable waste container. If no vacuum-cleaner is available, sweep slowly to minimize generation of dust during clean-up. Residue can be removed with soap and cold water.

SECTION 7 HANDLING AND STORAGE

Handling	: Avoid dust, keep away from ignition sources.
Prevention of Fire and Explosion	: This material is capable of creating a dust explosion. Keep away from heat, sparks & flame.
Storage	: Keep container in cool and dry area.
Hygienic Practices	: Avoid inhalation and ingestion. Avoid getting in eyes, on skin or clothing. Wash hands thoroughly after handling, and before eating, drinking, or smoking.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	
OSHA PELs (TWA)	
as the product	: 15mg/m^3 (Total dust) 5mg/m^3 (Respirable fraction)
Carbon black	: 3.5 mg/m^3
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
Other substances	: Not listed
DFG-MAK (TWA)	
as the product	: 4mg/m^3 (Inhalable fraction) 1.5mg/m^3 (Respirable fraction)
All substances	: Not listed
NOHSC (TWA)	
All substances	: Not listed
Engineering Controls	: Maintain adequate ventilation.
Eye Protection	: Not required under intended use.
Skin Protection	: Not required under intended use.
Respiratory Protection	: Not required under intended use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Fine solid powder
Color	: ##
Scent	: Odorless
Melting Point	: 110 - 150 degree (Softening point)
Specific Gravity(H2O=1)	: 1.1 - 1.5
Vapor Pressure	: Not applicable
Vapor Density (Air=1) :	: Not applicable
Evaporation Rate	: Not applicable
Solubility in Water	: Negligible
pH Value	: Not a water-based product, therefore not applicable.
Explosive Properties:	: little possiblity in intended use. According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powders.

SECTION 10 STABILITY AND REACTIVITY

Stability : Stable

Incompatibility : Not identified.

Hazardous Decomposition Products

: Carbon monoxide and carbon dioxide.

Hazardous Polymerization: : Will not occur.

SECTION 11 SUPPLEMENTAL HEALTH INFORMATION

Acute oral toxicity : LD50 is greater than 2,000mg/kg.
(This was the highest attainable mass.)

Acute inhalation : LC50(4H) is in excess of 5.05mg/l.
(This was the highest attainable concentration.)

Eye irritation : Minimally irritating.

Skin irritation : Mildly irritating

Skin sensitization : Non-sensitiser

Mutagenicity : Negative in the Ames test.

Carcinogenicity : : The IARC classified carbon black as a Group 2B carcinogen (possible human carcinogen).
But carcinogenicity was not observed with toner containing carbon black in chronic rat inhalaration study.
The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, carcinogenicity was observed in only specific rats. This is attributed to “lung overloading”, a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date have not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Chronic Effects : : In a study in rats 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 (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. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic environmennt : LC50 is greater than 100mg/L (fish)

: EC50 is greater than 100mg/L (daphnia)

: EbC50 is greater than 100mg/L (Algal)

(This was the highest attainable mass.)

SECTION 13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulation.

Empty plastic container may be recycled.

SECTION 14 TRANSPORTATION INFORMATION

Special Precautions : None

International Transport Information

UN Classification Number : Not applicable

Land DOT 49 CFR, ADR : Not classified as Dangeous Goods

Sea IMDG Code : Not classified as Dangeous Goods

Air ICAO-TI : Not classified as Dangeous Goods

SECTION 15 REGULATORY INFORMATION

IARC : See section 3 and 11.

US/Canada Information

OSHA Hazard Communication Standard, 29CFR 1910. 1200
: Not regulated.

Toxic Substance Control Act (TSCA)
: All chemical substances in this product comply with all applicable rules or orders under TSCA.

RCRA (40 CFR 261) : Product or components not listed.

CERCLA/SARA Informatio : Not regulated.

NTP Annual Report on Carcinogens
: Not listed as an NTP carcinogen.

California Proposition 65 : Not regulated.

Controlled Products Regulations(Canada)
: This product has been classified in accordance with the hazard criteria of the CPR.

Workplace Hazardous Materials Information System(Canada)
: No toxicology information available

Other State Regulations : Carbon black is listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./Canada Label Statements
: LOW HAZARD FOR RECOMMENDED HANDLING. Minimize dust generation and accumulation. Use with adequate ventilation.

EU Information

Label Information According to Directives 67/548 EEC & 1999/45 EC

Symbol & Indication : Not required

Risk Phrase : Not required

Safety Advise Phrase : Not required

76/769/EEC : All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

National requirement : : No specific regulations or restrictions.

Regulation (EC) No. 1907/2006（REACH)
: All chemical substances in this product comply with all applicable rules or order under 1907/2006

SECTION 16 OTHER INFORMATION

National Fire Protection Association (NFPA) Classification :

Flammability : 1

Reactivity : 0

Health : 0

(0 = insignificant, 1 = slight)

Hazardous Materials Information Systems (HMIS) :

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 0

(0 = insignificant, 1 = slight)

Notice : Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility.
Therefore, although reasonable care has been taken in the preparation of such information, Toshiba Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

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.

Abbreviation :
(1) OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA).
(2) ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA).
(3) DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
(4) TWA stands for Time Weighted Average.
(5) IARC stands for International Agency for Research on Cancer.
(6) NTP stands for National Toxicology Program (USA).
(7) NIOSH stands for National Institute for Occupational Safety and Health (USA).
(8) DOT stands for Department of Transportation (USA).
(9) NOHSC stands for National Occupational Heath and Safety Commission (Australia).