Safety Data Sheets

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
- Product name: T-FC28-K
- e-STUDIO4520C Series
- SDS NO.: TFC28K-1

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Toner for electrophotographic equipment

1.3 Details of the supplier of the safety data sheet
- Manufacturer: Toshiba TEC Corporation
  - Address: Gate City Ohsaki West Tower 1111-1, Osaki, Shinagawa-ku, Tokyo, 141-8562, Japan
  - Telephone number: +81-3-6830-9100

- Supplier: Toshiba America Business Solutions, Inc.
  - Emergency Telephone No.: +1-800-424-9300 (CHEMTREC)
    - For calls within the U.S. only.
    - +1 703-527-3887 (collect calls accepted) (CHEMTREC)
  - Outside USA and Canada
    - Toshiba of Canada Limited
      - Telephone No.: +1-905-470-3500
        - For calls within Canada only.

2. Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

- HEALTH HAZARDS:
  - Acute toxicity Oral: Out of class
  - Acute toxicity inhalation: Out of class
  - Skin corrosion/irritation: Out of class
  - Eye damage/eye irritation: Out of class
  - Sensitization-skin: Out of class

- ENVIRONMENT HAZARDS:
  - Hazardous to the aquatic environment-acute toxicity: Out of class

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

3. Composition/information on ingredients

Substance/Preparation:

3.2 Mixtures

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>content(%)</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester resin</td>
<td>80-90</td>
<td>-----</td>
</tr>
<tr>
<td>Carbon black</td>
<td>3-8</td>
<td>1333-86-4</td>
</tr>
<tr>
<td>Wax</td>
<td>&lt;10</td>
<td>-----</td>
</tr>
<tr>
<td>Amorphous silica</td>
<td>&lt;5</td>
<td>7631-86-9</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>&lt;2</td>
<td>13463-67-7</td>
</tr>
</tbody>
</table>

----- TRADE SECRET
4. First-aid measures
4.1 Descriptions of first-aid measures
Inhalation
Remove from exposure area to fresh air immediately.
Contact a physician if there is any difficulty in breathing or other signs of distress.
Skin Contact
Wash with soap and water.
If irritation occurs or is persistent, seek medical attention.
Eye Contact
Immediately flush eyes with plenty of water for at least 15 minutes.
If irritation persists, call a physician.
Ingestion
Dilute stomach contents with several glasses of water.

5. Fire-fighting measures
5.1 Extinguishing media
Suitable extinguishing media
Foam, carbon dioxide, dry chemical, water fog
Unsuitable extinguishing media
None
5.2 Special Hazards
Can form explosive dust-air mixtures when finely dispersed in air.
5.3 Advice for firefighters
Special protective equipment and precautions for fire-fighters
Wear cold insulating gloves/face shield/eye protection.

6. Accidental release measures
6.1 Personnel precautions, protective equipment and emergency procedures
Wear proper protective equipment.
Avoid breathing dust.
6.2 Environmental precautions
Do not wash away into shower or waterway.
6.3 Methods and materials for containment and cleaning up
Sweep slowly spilled toner/developer and carefully transfer into a waste container.

7. Handling and storage
7.1 Precautions for safe handling
Preventive measures
Do not breathe dust.
Exhaust/ventilator
No special ventilation equipment is needed under intended use.
7.2 Conditions for safe storage, including any incompatibilities
Recommendation for storage
Store in a dry place.
Keep out of the reach of children.
7.3 Specific end use(s)
Toner for electrophotographic equipment

8. Exposure controls/personal protection
8.1 Control parameters
ACGIH
(Carbon black)
ACGIH(2010) TWA: 3mg/m3(l)
(Titanium dioxide)
ACGIH(1992) TWA: 10mg/m3 (LRT irr)
OSHA-PEL
(Titanium dioxide)
TWA 15mg/m3
(Carbon black)
TWA 3.5mg/m3
(as the product)
TWA 15mg/m3(Total dust)
5mg/m3(Respirable fraction)
DMG-MAK
(as the product)
4mg/m3(Inhalable fraction)
1.5mg/m3(Respirable fraction)
8.2 Exposure controls
Individual protection measures
Respiratory protection
Not required under intended use.
Hand protection
Not required under intended use.
Eye protection
Not required under intended use.
Skin and body protection
Not required under intended use.

9. Physical and Chemical Properties
9.1 Information on basic physical and chemical properties
Physical properties
Appearance : powder/granule
Color : black
Odor : None
Phase change temperature
Melting point/Freezing point : 110-150 (Softening point)°C
Specific gravity/Density : 1.1-1.5 g/cm3
Solubility
Solubility in water : insoluble
9.2 Other information
Explosive Properties
Little possibility in intended use.
According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.
10. Stability and Reactivity
10.2 Chemical stability
Stable.
10.3 Possibility of hazardous reactions
None
10.5 Incompatible materials
None
10.6 Hazardous decomposition products
None

11. Toxicological Information
11.1 Information on toxicological effects
Acute toxicity
Acute toxicity (Oral), Product
LD50 > 2,000mg/kg
(This was the highest attainable mass.)
Acute toxicity (Gases inhalation), Product
LC50 >5.13mg/l
(This was the highest attainable concentration.)
Irritant properties
Skin corrosion/irritation
Non-irritant.
Serious eye damage /irritation
Non-irritant.
Skin sensitization
Non-sensitizer
Germ cell mutagenicity
Ames test :Negative
Carcinogenicity
(Carbon black)
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 inhalation study.
(Titanium dioxide)
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 has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.
No reproductive toxicity data available
Delayed and immediate effects and also chronic effects from short- and long-term exposure
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 (4mg/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.
No Aspiration hazard data available
12. Ecological Information
12.1 Toxicity
Aquatic toxicity
Aquatic acute toxicity component(s) data
LC50 is greater than 1000mg/L (fish)
EC50 is greater than 1000mg/L (daphnia)
Ebc50 is greater than 1000mg/L (Algal)
(This was the highest attainable mass.)
No Persistence and degradability data available
No Bioaccumulative potential data available
No Mobility in soil data available
Ozone depleting chemical data not available

13. Disposal considerations
13.1 Waste treatment methods
Dispose of in accordance with local, state and federal regulations.
Empty plastic container may be recycled.

14. Transport Information
UN No, UN CLASS
Not applicable to UN NO.
Land DOT 49 CFR,ADR : Not classified as Dangerous Goods
Sea IMDG Code : Not classified as Dangerous Goods
Air ICAO-TI : Not classified as Dangerous Goods

15. Regulatory Information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US/Canada Information
Toxic Substance Control Act (TSCA)
All chemical substances in this product comply with all applicable rules or orders under TSCA.
California Proposition 65
Not regulated.
Not regulated.
RCRA(40 CFR 261)
Product or components not listed.
CERCLA/SARA Information
Not regulated.
NTP Annual Report on Carcinogens
Not listed as an NTP carcinogen.

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.

EU Information
Regulation(EC)No.1907/2006(REACH)
All chemical substances in this product comply with all applicable rules or order under 1907/2006.
Australian Information
Not classified as hazardous according to criteria of NOHSC
The substance is being imported or manufactured under a permit granted under section 21U of the Industrial Chemicals (Notification and Assessment) Act 1989

16. Other information
Reference Book

Definitions and Abbreviations
OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Restrictions
This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determine the safety and suitability of each such product or combination for their own purposes.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.