No component of this toner is a PBT or vPvB substance under Regulation (EC) 1907/2006.
SECTION 4  FIRST AID MEASURES

First Aid Measures:

Inhalation:
If symptoms are experienced, move victim to fresh air and obtain medical advice.

Ingestion:
Rinse mouth. Drink 1 or 2 glasses of water. If irritation or discomfort occurs, obtain medical advice immediately.

Eye:
Do not allow victim to rub eye(s). Flush with lukewarm, gently flowing water for 5 minutes or until particle is removed. If irritation persists, obtain medical attention.

Skin:
Wash with soap and water. If irritation persists, obtain medical advice.

Note to Physicians:
None

SECTION 5  FIRE FIGHTING MEASURES

Fire Fighting Measures:

Extinguishing Media:
CO2, water, dry chemicals

Unsuitable Extinguishing Media:
None

Special Fire Fighting Procedures:
None

Unusual Fire and Explosion Hazards:
Can form explosive dust-air mixtures when finely dispersed in air.

Fire and Explosive Properties (See also SECTION 9):

Hazardous Combustion Products:
CO2, CO

Other Properties:
Not available

SECTION 6  ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Avoid breathing dust.

Environmental Precautions:
Do not wash away into sewer.

Method for Cleaning Up:
Sweep slowly spilled powder on to paper, and carefully transfer into a waste container. Clean remainder with wet paper, wet cloth or a vacuum cleaner.
If a vacuum cleaner is used, it must rate as a dust explosion-proof type. Fine powder can form explosive dust-air mixtures.

SECTION 7  HANDLING AND STORAGE

Handling:
Avoid breathing dust.
Use with adequate ventilation.

Storage:
Keep out of the reach of children.
Keep away from oxidizing materials.

Specific Uses:
Toner for electrophotographic apparatus.
For more information, please refer to the instruction of this product.
MATERIAL SAFETY DATA SHEET

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
USA OSHA PEL (TWA):  15 mg/m³ (Total dust), 5 mg/m³ (Respirable fraction)
ACGIH TLV (TWA):  10 mg/m³ (Inhalable fraction), 3 mg/m³ (Respirable fraction)
DFG (MAK):  4 mg/m³ (Inhalable fraction), 1.5 mg/m³ (Respirable fraction)
(Also refer to SECTION 3)

Engineering Controls:
Use adequate ventilation.

Personal Protection Equipment(s):

<table>
<thead>
<tr>
<th>Respiratory Protection:</th>
<th>Required</th>
<th>Not Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/Face Protection:</td>
<td>Required</td>
<td>Not Required</td>
</tr>
<tr>
<td>Skin Protection:</td>
<td>Required</td>
<td>Not Required</td>
</tr>
</tbody>
</table>

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black fine powder
Odor: Slight plastic odor
pH: Not applicable
Boiling Point/Range(°C): Not applicable
Melting Point/Range(°C): 100-150 (Softening point)
Decomposition Temperature(°C): > 200
Flash Point(°C): Not applicable
Flammable (Explosive) Limits: Not applicable
Autoignition Temperature(°C): Not available

Explosive Properties: Can form explosive dust-air mixtures when finely dispersed in air.

Oxidizing Properties: Not available
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Density / Specific Gravity: 1.4-1.6
Water Solubility: Negligible
Fat Solubility: Partially soluble in toluene and xylene.
Partition Coefficient (n-Octanol/Water): Not applicable
Percent Volatile: Negligible
Evaporation Rate: Not applicable
Viscosity (mPa s): Not applicable

Date of Issue: July 8, 1991  Revised: July 12, 2007
SECTION 10  STABILITY AND REACTIVITY

Stability: ☒ Stable
☐ Unstable

Conditions to Avoid: None

Materials to Avoid: Strong oxidizers

Hazardous Decomposition Products: CO, CO2

Hazardous Polymerization: ☐ May Occur
☒ Will Not Occur

Conditions to Avoid: None

SECTION 11  TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Rat, LD50 > 5000 mg/kg

Eye:
Rabbit, transient slight conjunctival irritation only.

Skin:
Rabbit, non-irritant

Sensitization:
Estimate: Guinea pig, skin: Non-sensitizing (See SECTION 16)

Mutagenicity:
Ames Test (Salmonella typhimurium): Negative

Reproductive Toxicity:
Not available

Carcinogenicity:
Not available

Others:
Chronic effects:
Muhle et al. reported pulmonary response upon chronic inhalation exposure in rats to a toner enriched in respirable-sized particles compared to commercial toner. No pulmonary change was found at 1 mg/m³ which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at 4 mg/m³, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m³. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.
SECTION 12  ECOLOGICAL INFORMATION

Mobility: Not available
Persistence / Degradability: Not available
Bioaccumulation: Not available

Ecotoxicity: Estimate: Fish, 96h LL50 > 1000 mg/l (WAF)
Estimate: Crustaceans, 48h EL50 > 1000 mg/l (WAF)
Estimate: Algae, EbL50(72h), ErL50(0-72h) > 1000 mg/l (WAF)
(See SECTION 16)

Other Adverse Effects: Not available

SECTION 13  DISPOSAL CONSIDERATIONS

Method of Disposal:
DO NOT put toner or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner
container, unless dust-explosion preventing measures are taken. Finely dispersed particles form explosive
mixtures in air. Disposal should be subject to federal, state and local laws.

SECTION 14  TRANSPORT INFORMATION

UN #: None
UN Shipping Name: None
UN Classification: None
UN Packing Group: None

Marine Pollutant: ☐ Yes ☑ No
Chemical name (wt%): None

Special Precautions: None

SECTION 15  REGULATORY INFORMATION

< EU Information >
Information on the Label:
Symbol & Indication: Not required
R-Phrase: Not required
S-Phrase: Not required

Dangerous Component(s): Not required

Special Precautions under 1999/45/EC Annex V:
Not required

Specific Provisions in Relation to Protection of Man or the Environment:
76/769/EEC: Not regulated
(EC)2037/2000: Not regulated
(EC)304/2003: Not regulated

Others: None

Date of Issue: July 8, 1991
Revised: July 12, 2007
< USA Information >

Information on the Label under OSHA:

Signal Word: Not required
Hazard warning: Not required
Safety Advice: Not required

Hazardous Component(s): Not required

SARA Title III §313:

Chemical Name  Weight %
None

California Proposition 65:

Chemical Name  Weight %
None

< Canada Information >

WHMIS Controlled Product: Not a controlled product

< Australia Information >

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC.

SECTION 16  OTHER INFORMATION

Revised information from the previous version: SECTION 2, 3, 8, 9, 11, 12 and 15
Estimate: Estimate based on test data on similar toner/developer/drum and/or the raw materials of this product.

Literature References:
- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- NIOSH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens
- DFG, List of MAK and BAT Values
- Canada Workplace Hazardous Materials Information System
Abbreviations:

EU: European Union.
OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA).
ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.
TWA: Time Weighted Average.
STEL: Short Term Exposure Limit.
IARC: International Agency for Research on Cancer.
NTP: National Toxicology Program (USA).
WAF: Water Accommodated Fraction
LL: Lethal Loading rate
EL: Effective Loading rate
OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).
FHSA: Federal Hazardous Substances Act (USA).
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

The information, data and recommendations set forth herein (the "Information") are presented in good faith and are believed to be correct as of the date hereof. The company/manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company/manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.