Material Safety Data Sheet

Section I - Product Identification

Trade Names/Synonyms: DocuPrint 4512 Toner Cartridge
Part No.: 106R88
Chemical Name: None
WHMIS Status: This is not a WHMIS controlled product.

Ingredients (% by wt.)

- Ferrite (>80%)
- Styrene/Acrylate copolymer (5-10%)
- Carbon Black (<1%)

CAS No.

- 66402-68-4
- 27136-15-8
- 1333-86-4

Section II - Emergency and First Aid

Primary Route of Entry:
Inhalation
Eyes:
Flush thoroughly with water.
Skin:
Wash skin thoroughly with soap and water.
Inhalation:
Remove from exposure.
Ingestion:
Dilute stomach contents with several glasses of water.

Symptoms of Overexposure:
Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Medical Conditions Generally Aggravated by Exposure:
None when used as described by product literature.

Additional Information:
None.

Section III - Toxicology and Health Information

This material has been evaluated by Xerox Corporation. The toxicity data presented below is for toner only and is based on the testing of similar xerographic toner materials.

Oral LD₅₀: >5 g/kg (rats) practically non-toxic.
Dermal LD₅₀: >5 g/kg (rabbits) practically non-toxic.
Inhalation LC₅₀: >5 mg/l (rats, 4 hr exposure) practically non-toxic.
>20 mg/l (rats, calculated 1 hr exposure) non-poisonous, DOT.
Eye Irritation: Not an irritant.
Skin Sensitization: Not a sensitizer.
Skin Irritation: Not an irritant.
Human Patch: Non-sensitizing, non-irritating.
Mutagenicity: No mutagenicity detected in Ames test.¹
Carcinogens: None present
Aquatic LC₅₀: >1125 mg/l (rainbow trout), non-toxic.

TLV: 10 mg/m³ (total dust)
PEL: 15 mg/m³ (total dust)
STEL: 5 mg/m³ (respirable dust)
XEL: 2.5 mg/m³ (total dust)
XEL²: 0.4 mg/m³ (respirable dust)

Additional Information: The results obtained from a Xerox sponsored Chronic Toner Inhalation Study, demonstrated no lung change in rats for the lowest (1mg/m³) exposure level (i.e. the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of the animals at the middle (4mg/m³) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m³) exposure level. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged period. This study was conducted using a special test toner to comply with EPA testing protocol. The test toner was ten times more respirable than commercially available Xerox toner, and would not be functionally suitable for Xerox equipment.

¹Test results specific to this product. ²XEL-Xerox Exposure Limit
Section IV - Physical Data

Appearance/Odor: Black powder/odorless
Boiling Point: N.A.
Solubility in Water: Negligible
Evaporation Rate: N.A.
Volatile: N.A. (% Wt.) N.A. (% Vol.)

Softening Range: N.A.
Melting Point: N.A.
Specific Gravity (H2O=1): 1.1 (Toner) / 5.1 (Developer)
Vapor Pressure @ 20°C (mm Hg): N.A.
Vapor Density (Air=1): N.A.
PH: N.A.
Volatile Organics: N.D.

Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.
Flammable Limits: LEL: 1.2% UEL: 9.6%
NFPA 704: Health - 0, Fire - 1, Reactivity - 0
Extinguishing Media: Foam, dry chemical, CO2, water fog.
Special Fire Fighting Procedures: Avoid inhalation of smoke. Wear protective clothing and self-contained breathing apparatus.
Fire and Explosion Hazards: Toner is a combustible powder. Like most organic materials in powder form, it can form explosive mixtures when dispersed in air.

Section VI - Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur
Hazardous Decomposition Products: CO and NOx
Incompatibility (Materials to Avoid): None

Section VII - Special Protection Information

Respiratory Protection: None required under normal use.
Eye Protection: None required.
Protective Gloves: None required.
Other: None.

Section VIII - Special Precautions

Handling and Storage: None.
Conditions to Avoid: Avoid prolonged inhalation of excessive dust.

Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: Sweep up or vacuum spilled toner/developer and transfer into a sealable waste container.
Waste Disposal Method: This material is not a hazardous waste according to Federal Regulation 40 CFR 261. State and local waste disposal requirements may however be more restrictive. Consult with the appropriate State and local authorities for specific information.

Section X - Transportation Information

DOT Proper Shipping Name: N.A. (Not Regulated)
Hazard Classification: N.A.
ID Number: N.A.
Packing Group: N.A.