

XEROX

MATERIAL SAFETY DATA SHEET

Manufacturer: Xerox Corporation, Office Group
P. O. Box 1000, Wilsonville, Oregon, 97070-1000

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SECTION 1 - PRODUCT IDENTIFICATION

<u>Product Names</u>	<u>Part Numbers</u>
Black Toner Cartridge	016-1882-00, 016-1947-00
Cyan Toner Cartridge	016-1879-00, 016-1944-00
Magenta Toner Cartridge	016-1880-00, 016-1945-00
Yellow Toner Cartridge	016-1881-00, 016-1946-00

Black Developer Cartridge	116-1111-00
Cyan Developer Cartridge	116-1114-00
Magenta Developer Cartridge	116-1113-00
Yellow Developer Cartridge	116-1112-00

(Developer cartridges are replaced by Xerox Service Technicians only)

Product Use: XEROX Phaser ® 7700 color printers

SECTION 2 - INFORMATION ON INGREDIENTS

<u>Ingredients (% by weight)</u>	<u>CAS number</u>
<u>Toner:</u>	
Polyester resins (60-90%)	Trade secret
Carbon black or non-hazardous color pigments (2-35%)	Trade secret
Amorphous silicas (2-5%)	68611-44-9/67762-90-7
<u>Developer:</u>	
Frits, chemicals (>95%)	65997-18-4
Toner (<5%)	

SECTION 3 - HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE: Toner and developer powders are encased in a cartridge. Minimal exposure through inhalation or skin contact is expected when used as intended.

POTENTIAL HEALTH EFFECTS: Health effects from this product are expected to be negligible, when product is used as intended. See Section 11, Toxicology Information.

Immediate Effects:

Inhalation: Minimal irritation to respiratory tract, as for any non-toxic dust
Skin: Not expected to cause skin irritation
Eye: Not expected to cause eye irritation
Ingestion: Not an expected route of exposure
Chronic Effects: None known

SIGNS AND SYMPTOMS OF EXPOSURE: Minor irritation to respiratory tract.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove person to fresh air. Seek medical attention if symptoms occur.
EYES: If particles get into eye, flush thoroughly with water. Seek medical attention if symptoms occur.
SKIN: Wash thoroughly with soap and water. Seek medical attention if symptoms occur.
INGESTION: Dilute stomach contents with several glasses of water. Seek medical attention if symptoms occur.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: Not applicable
FIRE & EXPLOSION HAZARDS: Toner is a combustible powder. Like most organic powders, it can form explosive mixtures when dispersed in air.
EXTINGUISHING MEDIA: Water, dry chemical, carbon dioxide, or foam.
FIRE FIGHTING INSTRUCTIONS: Avoid inhalation of smoke. As for any fire, wear protective clothing and self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK: Sweep up or vacuum spilled materials and carefully transfer into sealable waste container. Sweep slowly to minimize generation of dust during clean up. If a vacuum is used, the motor must be rated as dust tight. A conductive hose bonded to the machine should be used to reduce static buildup. Clean up residue if necessary with soap and cold water. Wash or dry clean garments after removing loose toner.

SECTION 7 - HANDLING AND STORAGE

HANDLING: No special precautions, when used as intended.
STORAGE: Avoid high temperatures.

SECTION 8 - EXPOSURE CONTROL - PERSONAL PROTECTION

No special personal protection indicated, when used as intended in Xerox Phaser ® color printers.

THRESHOLD LIMIT VALUE (TLV): 10 mg/m³ (total dust)
PERMISSIBLE EXPOSURE LIMIT (PEL): 15 mg/m³ (total dust); 5 mg/m³ (respirable dust)
SHORT TERM EXPOSURE LIMIT (STEL): None established
CEILING LIMIT: None established
XEROX EXPOSURE LIMIT (XEL): 2.5 mg/m³ (total dust); 0.4 mg/m³ (respirable dust)

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/ODOR: Black, blue, red, or yellow powders/faint odor
BOILING POINT: Not applicable
SOLUBILITY IN WATER: Insoluble
EVAPORATION RATE: Not applicable
VAPOR DENSITY (Air = 1): Not applicable
VOLATILE: Not applicable
SOFTENING RANGE: Not available
MELTING POINT: Not available
SPECIFIC GRAVITY (Water = 1): Approximately 1 (toner), 5 (developer)
VAPOR PRESSURE (mm Hg): Not applicable
pH: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable.
INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS: During a fire, toxic gases may be generated by thermal decomposition or combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

This material has been evaluated by Xerox Corporation. The toxicity data noted below is based on test results of similar toners.

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 hour exposure), practically non-toxic
Inhalation LC₅₀: > 20 mg/l (rats; calculated for 1 hour exposure), non-poisonous per DOT
Eye Irritation: Not an irritant
Skin sensitization: Not a sensitizer
Skin irritation: Not an irritant
Human Patch: Non-irritating, non-sensitizing
Mutagenicity: No mutagenicity detected in Ames assay
Carcinogens: None present

Additional Information: The results obtained from a Xerox sponsored Chronic Toner Inhalation Study demonstrated no lung changes in rats for the lowest (1 mg/m³) exposure level (ie., the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of the animals at the middle (4 mg/m³) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m³) exposure level. The 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.

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic LC₅₀: > 1000 mg/l (fathead minnows; rainbow trout) non-toxic

SECTION 13 - DISPOSAL CONSIDERATIONS

These materials are not RCRA hazardous wastes as specified in 40 CFR 261. State and local waste disposal requirements, however, may be more restrictive. Dispose in accordance with all federal, state, and local regulations. Incinerate only in a closed container.

SECTION 14 - TRANSPORTATION INFORMATION

DOT: Not regulated.

SECTION 15 - REGULATORY INFORMATION

TSCA: All components of these toners have been manufactured in compliance with TSCA.

RCRA: TCLP metals below hazardous waste levels set by EPA.

CANADIAN WHMIS: These toners are not regulated as controlled products under the Workplace Hazardous Material Information System (WHMIS).

SECTION 16 - OTHER INFORMATION

NFPA 704: Health-0, Fire-1, Reactivity-0 (All colors)

Xerox Corporation
Office Printing Business
Environmental, Health & Safety
P.O. Box 1000
Mail Stop 7063-512
Wilsonville, Oregon 97070
Safety Information: 800-828-6571
Health Emergency: 585-422-2177
Transportation Emergency (Chemtrec): 800-424-9300