

# Specifications

## Material Safety Data Sheet

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

Preparation Date: January 15, 2001

### SECTION 1 - PRODUCT IDENTIFICATION

Product Names	Part Numbers
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

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

### 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/m<sup>3</sup> (total dust)

**PERMISSIBLE EXPOSURE LIMIT (PEL):** 15 mg/m<sup>3</sup> (total dust); 5 mg/m<sup>3</sup> (respirable dust)

**SHORT TERM EXPOSURE LIMIT (STEL):** None established

**CEILING LIMIT:** None established

**XEROX EXPOSURE LIMIT (XEL):** 2.5 mg/m<sup>3</sup> (total dust); 0.4 mg/m<sup>3</sup> (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 LD<sub>50</sub>: >5 g/kg (rats), practically non-toxic

Dermal LD<sub>50</sub>: > 5 g/kg (rabbits), practically non-toxic

Inhalation LC<sub>50</sub>: > 5 mg/l (rats; 4 hour exposure), practically non-toxic

Inhalation LC<sub>50</sub>: > 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/m<sup>3</sup>) exposure level (i.e., the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25 percent of the animals at the middle (4 mg/m<sup>3</sup>) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m<sup>3</sup>) 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 LC<sub>50</sub>: > 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)

Original preparation date: 1/15/01

Xerox Corporation

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Environmental, Health & Safety

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Health Emergency: 716-422-2177

Transportation Emergency (Chemtrec): 800-424-9300