



MATERIAL SAFETY DATA SHEET
BLACK PRINT CARTRIDGE
P/N 12A2202, 13T0101, 13T0301

Revised Date: 07/10/00

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Lexmark has determined that Material Safety Data Sheets are not required for print cartridges. For customer convenience, Lexmark provides product information in this familiar format.

SECTION 1 - PRODUCT IDENTIFICATION

Name: Black Print Cartridge
P/N: 12A2202, 13T0101, 13T0301
Family: Toner Cartridge
Product Use: Optra E310, E312, E312L

SECTION 2 - GENERAL COMPOSITION OF INKS CONTAINED IN CARTRIDGE

COMPONENT	PERCENT (WT.)	CAS#	OSHA PEL	ACGIH TLV
Styrene Butylacrylate Acrylic Acid Copolymer	89.7	25586-20-3	(1)	(1)
Carbon Black	3.9	1333-86-4	3.5 mg/kg(2)	3.5 mg/kg(2)
Polypropylene	2.9	9003-07-0	(1)	(1)
Phthalocyanine Blue	0.9	12239-87-1	(1)	(1)
Charge Control Agent	0.7	31714-55-3	(1)	(1)
Silica (Amorphous)	1.9	7631-86-9	(1)	(1)

Notes: (1) Specific workplace limits have not been established.
(2) Total dust, measured as carbon black.

SECTION 3 - HAZARDS IDENTIFICATION

Primary Routes of Entry: Inhalation of dust, skin contact.

Signs and Symptoms of Exposure: Toner on skin or mucus membranes (mouth, nose).

Medical Conditions Aggravated by Exposure: None known at intended levels of use. Exposures to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.

Physical Hazards: As with most finely divided dusts, explosion is possible when extremely high concentrations of dust and an ignition source are present. Not a hazard under normal conditions of use.

POTENTIAL HEALTH EFFECTS:

- Inhalation:** Short Term Exposure - Testing and/or information on this or similar toners, or on the constituents of this toner indicate low inhalation toxicity. As with exposure to high concentrations of any dust, minimal respiratory tract irritation may occur if excessive amounts of toner dust are inhaled. Exposure not probable with intended use.
- Long Term Exposure - No adverse chronic effects known at intended level of use. Exposure not probable with intended use.
- Skin Contact:** Short Term Exposure - Testing and/or information on this or similar toners, or on the constituents of this toner indicate this toner is not a skin irritant and is of low dermal toxicity.
- Long Term Exposure - Rare individuals may note skin rash with repeated contact. Exposure not probable with intended use.
- Eye Contact:** Short Term Exposure - Toner may act as a mechanical irritant.
- Long Term Exposure - No adverse chronic effects known. Exposure not probable with intended use.
- Ingestion:** Short Term Exposure - Testing and/or information on this or similar toners, or on the constituents of this toner indicate low oral toxicity. Exposure not probable with intended use.
- Long Term Exposure - No adverse chronic effects known. Exposure not probable with intended use.

SECTION 4 - FIRST AID MEASURES

Inhalation: If symptoms, such as shortness of breath or persistent coughing, are experienced, remove source of contamination and move individual to fresh air. Seek medical attention.

Skin Contact: Wash affected area with soap and water. Should irritation occur, seek medical attention.

Eye Contact: Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. Seek medical attention if irritation develops and persists.

Ingestion: If conscious, immediately wash mouth out with plenty of water. If irritation occurs, seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Not applicable

Autoignition: Not available

Extinguishing Media: CO₂, water spray or fog, dry chemical, or foam.

Firefighting: NIOSH approved self contained breath apparatus may be required if large number

of cartridges is involved.

Fire and Explosion Hazard: Like many finely divided materials, toner dust, in high concentrations can form an explosive mixture in air which, if ignited, could result in dust explosion.

Hazardous Combustion Products: Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide. The exact composition of the products of combustion will depend on the conditions of combustion.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Occupational Spill: If a dust cloud is possible due to a spill, remove all sources of ignition such as open sparks, flames or static discharge to prevent the ignition of the dust. Minimize dust generation during clean up. Sweep up spill with non-metallic broom and dust pan. To avoid possible dust explosion do not use vacuum cleaners to clean up spills. Contain for disposal.

Oil permeated sweeping compound may assist in the cleanup of toner spilled on non-porous surfaces.

SECTION 7 - HANDLING AND STORAGE

Store in a cool dry place. Store away from oxidizing materials.

When handling, minimize generation of dust. Supply adequate ventilation.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Mechanical room ventilation

Eye Protection: None required for intended use in printer.

Protective Clothing: None required for intended use in printer.

Gloves: None required for intended use in printer.

Respirator: None required for intended use in printer.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (TONER)

Description: Odorless black powder
Pressurized: No
Vapor Density (Air = 1): Not applicable
Boiling Point: Not applicable
Softening Point: Not available

pH: Not applicable
Specific Gravity (H₂O=1): 1.1 g/cm³
Evaporation Rate: Not applicable
Water Solubility: Negligible
% Volatility: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Combustible atmosphere of toner dust. Ignition sources, excessive heat, sparks and open flame.

Incompatibilities: Strong oxidizers

Hazardous Decomposition: Carbon dioxide, carbon monoxide, and unidentified organics.

Polymerization: Will not occur.

SECTION 11 - TOXICOLOGY INFORMATION

Acute Toxicity: Not acutely toxic; LD₅₀ (oral, rat) expected to be >5000 mg/kg, based on data from similar toners.

Chronic Toxicity: Not expected to be toxic. Industry tests on similar generic toner showed no signs of overt toxicity. Rats exposed to high levels of toner showed an inflammatory response and a mild to moderate degree of lung fibrosis. There were no pulmonary changes of any type at the lower toner exposure level, which is most relevant in regard to potential human exposures. Pure carbon black, a minor component of this toner, has been listed by IARC as a group 2B (possible carcinogen) based on rat "lung particulate overload" studies. Toner is not listed by IARC, NTP, or OSHA. Results of Ames testing conducted on this product are negative.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental impact rating (0-4): Not available

Acute Aquatic Toxicity: Not available

Degradability: Not available

Log Bioconcentration Factor (BCF): Not available

Log Octanol/Water Partition Coefficient: Not available

SECTION 13 - DISPOSAL INFORMATION

Dispose of in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

This product is not regulated as a hazardous material by the **DOT**.

SECTION 15 - REGULATORY INFORMATION

All ingredients are registered under the **Toxic Substances Control Act (TSCA)** or under polymer exemption.

All ingredients are registered or consider registered (polymers) under **Canada Domestic Substances List (DSL)**.

All ingredients are registered or considered registered (polymers) under **European Inventory of Existing Commercial Chemical Substances (EINECS)**.

None of the product ingredients is listed as **Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302: Extremely Hazardous Substances (EHS)**.

None of the product ingredients has a final Reportable Quantity (RQ) under **EPCRA Title III - CERCLA Section 302**.

This material contains no ingredients which, if spilled or released in quantities equal to or greater than the Reportable Quantity (RQ), are subject to the reporting requirements of **CERCLA and/or EPCRA (40 CFR parts 302 and 355)**.

This product contains no known materials at levels which the State of California has found to cause cancer, birth defects or other reproductive harm - **California Proposition 65**.

This product contains a component (carbon black CAS# 1333-86-4) at a concentration above the MSL de minimus concentration - **Massachusetts Right to Know**.

This product contains a component (carbon black CAS# 1333-86-4) at a concentration above the de minimus concentration - **New Jersey Right to Know**.

This product contains a component (carbon black CAS# 1333-86-4) at a concentration above the de minimus concentration - **Pennsylvania Right to Know**.

SECTION 16 - OTHER

Disclaimer: Data are most current known to Lexmark at the time of preparation and are believed to be accurate. No warranty as to their accuracy or completeness is expressed or implied.