



**MATERIAL SAFETY DATA SHEET
BLACK TONER CARTRIDGE: P/N 12A1454**

Revised 06/09/98

Lexmark International, Inc.
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Lexington, Kentucky 40550-1876 Information: 1-606-232-3000
Emergency: 1-606-232-3333

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 Toner Cartridge
P/N: 12A1454
Chemical Family: Cartridge contains toner
Product Use: Optra Color 1200 Printers

SECTION 2 - GENERAL COMPOSITION OF TONER CONTAINED IN CARTRIDGE

COMPONENT	PERCENT (wt.)	CAS#	OSHA PEL	ACGIH TLV
Polyester Resin	90-95	(1)	(2)	(2)
Carbon Black	3-4	1333-86-4	3.5 mg/m ³	3.5 mg/m ³
Charge Control Agent	0.5-1.5	104815-18-1	(2)	(2)
Polypropylene Wax	2-3	9010-79-1	(2)	(2)
Amorphous Silica	1-1.5	7631-86-9	(3)	10 mg/m ³ (4) 3 mg/m ³ (5)
Silica (Silanamine)	0.2-0.4	68909-20-6	(2)	(2)

- Notes:** (1) Trade secret or patented molecule (NJTSN 80100252-5001P).
(2) Specific workplace exposure limits have not been established.
(3) Calculated (80 mg/m³/%SiO₂)
(4) Inhalable particulate
(5) Respirable particulate

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.
Exposure to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.

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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.
- 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. If symptoms persist, 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. Seek medical attention.

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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 breathing apparatus may be required if a 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: Carbon dioxide, carbon monoxide, phenol derivatives at temperatures >300°C.

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 cleanup spills. Contain for disposal. Oil permeated sweeping compound may assist in the cleanup of toner spilled on nonporous 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

Exposure Limits:

OSHA :

- 15 mg/m³ (total dust, particulates not otherwise regulated-PNOR)
- 5 mg/m³ (respirable dust, particulates not otherwise regulated-PNOR)
- 3.5 mg/m³ (total dust, measured as carbon black)
- 80 mg/m³/%SiO₂ (total dust, measured as amorphous silica)

ACGIH :

- 10 mg/m³ (total dust, particulates not otherwise classified-PNOC)
- 3 mg/m³ (respirable dust, particulates not otherwise classified-PNOC)
- 3.5 mg/m³ (total dust, measured as carbon black)
- 10 mg/m³ (inhalable particulate, measured as amorphous silica)
- 3 mg/m³ (respirable particulate, measured as amorphous silica)

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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

Description: Black odorless powder

Pressurized: No

Vapor Pressure: Not available

Evaporation Rate: Not applicable

Water Solubility: Negligible

% Volatility: Not available

Softening Point: 127-133°C

pH: Not applicable

Particle Size: D50 8.5um

Melting Point: Not applicable

Boiling Point: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

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

Incompatibilities: Strong oxidizers

Hazardous Decomposition: Carbon dioxide, carbon monoxide, and phenol derivatives at temperatures >300°C.

Hazardous Polymerization: This product will not polymerize.

SECTION 11 - TOXICOLOGY INFORMATION

Acute Toxicity: Not expected to be acutely toxic.

Chronic Toxicity: Not expected to be toxic. 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.

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

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SECTION 13 - WASTE DISPOSAL INFORMATION

This product is not a listed or hazardous waste in accordance with Federal Regulation 40 CFR Part 261 or the Code of California Regulations Title 22. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal 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 exempt, registered or considered registered (polymers) under the **European Inventory of Existing Commercial Chemical Substances (EINECS)**.

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

None of the product components are present above the minimum quantities of listed chemicals in **EPCRA Section 313 Supplier Notification**.

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.