



MATERIAL SAFETY DATA SHEET
LEXMARK TONER CARTRIDGE, OPTRA E: P/N 69G8256

Revised 09/22/98

Lexmark International, Inc.
740 New Circle Rd. NW
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: Lexmark Toner Cartridge, Optra E
P/N: 69G8256
Additional P/N: 11A7469
Chemical Family: Cartridge contains toner
Product Use: Lexmark Optra E Laser Printer

SECTION 2 - GENERAL COMPOSITION OF TONER CONTAINED IN CARTRIDGE

COMPONENT	PERCENT (wt.)	CAS#	OSHA PEL	ACGIH TLV
Polyester Resin	>85	(1)	(2)	(2)
Carbon Black	1-5	1333-86-4	3.5 mg/m ³	3.5 mg/m ³
Polyolefin wax	1-5	(1)	(2)	(2)
Organic Pigment	1-5	(1)	(2)	(2)
Quaternary Ammonium Salt	<1	(1)	(2)	(2)

Notes: (1) Trade secret or patented molecule.
(2) Specific work place exposure limits have not been established.

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.
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.

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POTENTIAL HEALTH EFFECTS:

Inhalation: Short Term Exposure - Minimal respiratory tract irritation may occur as with any exposure to large amounts of dust. Exposure not probable with intended use.

Long Term Exposure - Chronic inhalation exposure to high airborne concentrations may result in irreversible adverse pulmonary effects. Significant exposure not probable with intended use.

Skin Contact: Short Term Exposure - Test data from similar toner materials indicates 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. Significant 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. Significant exposure not probable with intended use.

Ingestion: Short Term Exposure -

toxicity. Exposure not probable with intended use.

Long Term Exposure - No information available. 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 or move individual to fresh air. If symptoms persist, seek medical attention.

Skin Contact: Wash affected areas with soap and water. Should irritation occur, obtain 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. If irritation develops and persists, seek medical attention.

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

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SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Not applicable

Autoignition: 450°C (toner)

Extinguishing Media: CO₂, water spray, foam, or dry chemical. Avoid full water jet.

Firefighting: NIOSH approved self-contained breathing apparatus (SCBA) may be required if large numbers of cartridges are 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, low molecular weight organics.

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. Contain for disposal. To avoid possible dust explosion, do not use vacuum cleaners to clean up spills. Oil permeated sweeping compound may assist in the clean-up of toner spilled on nonporous surfaces.

SECTION 7 - HANDLING AND STORAGE

Store in a cool, dry place.

To avoid damage to cartridge and accidental contact with toner - Keep out of reach of small children.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

OSHA: 15 mg/m³ (dust, measured as total dust-PNOR)
5 mg/m³ (dust, measured as respirable dust-PNOR)
3.5 mg/m³ (carbon black, measured as total dust)

ACGIH: 10 mg/m³ (dust, measured as total dust-PNOC)
3 mg/m³ (dust, measured as respirable dust-PNOC)
3.5 mg/m³ (carbon black, measured as total dust)

Ventilation: Mechanical room ventilation recommended.

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.

Other: Wash hands after handling.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Description: Cartridge contains finely divided black powder with faint odor.

Particle Size: 5-15 um (toner)

Softening Point Onset: 120 - 130°C (toner)

Vapor Density (Air = 1): Not applicable

Vapor Pressure: Not applicable

Explosion Properties: No data available

pH: Not applicable

Solubility in Water: Negligible (toner)

% Volatility: Not applicable

Pressurized: No

Boiling Point: Not applicable

Flash Point: Not applicable

Ignition Temperature: 450°C (toner)

Density: 1.2 g/cm³ (toner)

Evaporation Rate: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Ignition sources in combustible atmospheres of toner dust.
Throwing toner into an open fire.

Incompatibilities: Strong oxidizers

Hazardous Decomposition: Oxides of carbon

Polymerization: This product will not polymerize.

SECTION 11 - TOXICOLOGY INFORMATION

Acute Toxicity: Not acutely toxic; LD50 > 5000 mg/kg.

Chronic Toxicity: Contents of cartridge 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 a chronic 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 regards to potential human exposures. Pure carbon black, a minor component of toner, has been listed by IARC as 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 - DISPOSAL INFORMATION

As formulated and packaged, this toner and cartridge is not classified as a hazardous waste by either Federal Regulation 40 CFR Part 261 or the Code of California Regulations Title 22. Dispose of in accordance with local, state, and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Not classified as a hazardous material or substance under 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)**.

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