



# Material Safety Data Sheet

Black Print Cartridge SN: 521

## 1. Product and company identification

**Supplier/Manufacturer:** Lexmark International, Inc.  
 740 West New Circle Road  
 Lexington, Ky 40550

**Description :**

**Part number :**

	Supply number	Part number	Supply number	Part number
Print Cartridge , Black	521	52D1000	521HE	52D1H0E
Print Cartridge , Black	522	52D2000	522HE	52D2H0e
Print Cartridge , Black	523	52D3000	523HE	52D3H0E
Print Cartridge , Black	524	52D4000	524HE	52D4H0E
Print Cartridge , Black	525	52D5000	525HE	52D5H0E
Print Cartridge , Black	520HA	52D0HA0	521XE	52D1X0E
Print Cartridge , Black	521H	52D1H00	522XE	52D2X0E
Print Cartridge , Black	522H	52D2H00	523XE	52D3X0E
Print Cartridge , Black	523H	52D3H00	524XE	52D4X0E
Print Cartridge , Black	524H	52D4H00	525XE	52D5X0E
Print Cartridge , Black	525H	52D5H00	520HR	52D0H0R
Print Cartridge , Black	520XA	52D0XA0	520XR	52D0X0R
Print Cartridge , Black	521X	52D1X00		
Print Cartridge , Black	522X	52D2X00		
Print Cartridge , Black	523X	52D3X00		
Print Cartridge , Black	524X	52D4X00		
Print Cartridge , Black	525X	52D5X00		
Image Unit	520Z	52D0Z00		
Image Unit	520ZA	52D0ZA0		

For actual printer/cartridge compatibility please reference [www.lexmark.com](http://www.lexmark.com)

Application : Laser Printer MS710, MS711, MS810, MS811, MS812

Information: 1-859-232-3000

Emergency: 1-859-232-3333

## 2. Composition/information on ingredients

Name	%	CAS number	OSHA PEL	ACGIH TLV
Polyester resin	75 - 85	Trade secret	None	None
Iron Oxide	7 - 13	1317-61-9	None	None
Carbon black	3 - 7	1333-86-4	<b>OSHA PEL (United States, 6/2010).</b> TWA: 3.5 mg/m <sup>3</sup> 8 hour(s). <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 3.5 mg/m <sup>3</sup> 8 hour(s).	<b>ACGIH TLV (United States, 2/2010).</b> TWA: 3 mg/m <sup>3</sup> 8 hour(s). Form: Inhalable fraction
Wax	1-5	Trade secret Registry number: NJTSRN 80100451-5016	None	None
Charge Control Agent	0.5 - 1.5	Trade secret Registry number: NJTSRN 80100451-5037	None	None
Amorphous Silica	0.5 - 1.5	Trade secret Registry number: NJTSRN 80100451-5015	None	None
titanium dioxide	0.1-1	13463-67-7	<b>OSHA PEL (United States, 6/2010).</b> TWA: 15 mg/m <sup>3</sup> 8 hour(s). Form: Total dust <b>OSHA PEL 1989 (United States, 3/1989).</b>	<b>ACGIH TLV (United States, 2/2010).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s).

TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form:  
Total dust

### 3 . Hazards identification

<b>Hazard information</b>	: Primary Routes of Exposure: Dust inhalation, skin contact.
<b>Inhalation</b>	: Low acute inhalation toxicity. As with exposure to high concentrations of any dust, minimal irritation of the respiratory tract may occur. Exposure not probable with intended use. Chronic: No adverse changes in the lungs result from this accumulation. Exposure not probable with intended use.
<b>Skin contact</b>	: Not an irritant. Low dermal toxicity. Not a dermal sensitizer.
<b>Eye contact</b>	: Toner may act as a mechanical irritant.
<b>Ingestion</b>	: Low acute oral toxicity.

### 4 . First aid measures

<b>Inhalation</b>	: 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.
<b>Skin contact</b>	: Wash with soap and water. Should irritation occur, seek medical attention.
<b>Eye contact</b>	: 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.
<b>Ingestion</b>	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
<b>Aggravated conditions</b>	: Exposure to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.
<b>Notes to physician</b>	: No specific antidote.

### 5 . Fire-fighting measures

<b>Flash point</b>	: Solid, not applicable.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Flammable limits</b>	: Not determined.
<b>Extinguishing media</b>	: Carbon dioxide, water spray or fog, dry chemical or foam.
<b>Hazardous combustion products</b>	: Carbon monoxide, carbon dioxide, unidentified organics.
<b>Special exposure hazards</b>	: Like many finely divided materials, toner dust, in high concentrations can form an explosive mixture in air which, if ignited, could result in a dust explosion.
<b>Special protective equipment for fire-fighters</b>	: Fire fighters should wear full protective clothing, including self-contained breathing apparatus.
<b>NFPA Rating</b>	: Health: 1 Flammability: 1 Reactivity: 0
<b>HMIS Classification</b>	: Health: 1* Flammability: 1 Reactivity: 0

### 6 . Accidental release measures

<b>Personal precautions</b>	: None required for intended use in printer.
<b>Environmental precautions</b>	: Disposal is subject to national, state, regional, or provincial regulations.
<b>Methods for cleaning up</b>	: 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 dustpan. Contain for disposal. Oil permeated sweeping compound may be useful in cleaning up spills.

## 7 . Handling and storage

- Handling** : Avoid generating dust. To avoid damage to cartridge and accidental contact with toner, keep out of reach of children.
- Storage** : Store in a cool, dry place. Store away from oxidizing material.

## 8 . Exposure controls/personal protection

- Engineering measures** : Not required. Use in a well-ventilated area.
- Respiratory** : None required for intended use in printer.
- Gloves** : None required for intended use in printer.
- Skin protection** : None required for intended use in printer.
- Eyes** : None required for intended use in printer.

## 9 . Physical and chemical properties

- Physical state** : Solid (Finely divided solid.)
- Color** : Black.
- Odor** : Faint odor (Plastic.)
- Vapor density** : Not applicable.
- Solubility** : Insoluble in water.
- Melting/freezing point** : Not determined.
- Specific gravity** : Not determined.
- Volatility** : Not determined.
- Evaporation rate** : Not applicable.

## 10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Conditions to avoid** : Keep away from heat, flame, sparks and other ignition sources.
- Materials to avoid** : Strong oxidizing materials.
- Hazardous decomposition products** : Carbon monoxide, carbon dioxide, unidentified organics.
- Hazardous polymerization** : Will not occur.
- Additional guidelines** : None known.

## 11 . Toxicological information

- Primary routes of exposure** : Inhalation of dust, skin contact.
- Ingestion** : Low acute oral toxicity. Exposure not probable with intended use.
- Acute toxicity oral rat LD50 (mg/kg)** :

Product/ingredient name	Species	Dose	Result
Black Print Cartridge SN: 501	Rat	>5000 mg/l	LC50 Inhalation Vapor 4 hours
	Rat	>5000 mg/kg	LD50 Oral -
Carbon black	Rat	>15400 mg/kg	LD50 Oral -

- Inhalation** : Low acute inhalation toxicity. As with exposure to high concentrations of any dust, minimal irritation of the respiratory tract may occur. Pure carbon black, a minor component of this product, has been listed by IARC as a group 2B (possible carcinogen). This classification is based on rat "lung particulate overload" studies performed with airborne particulate carbon black. Toner is not listed by IARC, NTP, or OSHA. Long term exposure to excessive concentrations of iron oxide-containing dusts has resulted in a condition identified as siderosis, a relatively benign pneumoconiosis, caused by deposition of iron oxide particles in the lung.

- Aggravating conditions** : Exposure to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.
- Potential chronic health effects** : CARCINOGENIC EFFECTS: Classified 2B (Possible for humans.) by IARC [Carbon Black]. Classified 2B (Possible for humans.) by IARC [Titanium dioxide].  
MUTAGENIC EFFECTS: Toner is negative (nonmutagenic) in the Ames assay.  
TERATOGENIC EFFECTS: Not available.
- Exposure limit values** : Toner dust is a particulate not otherwise classified (PNOC) or regulated (PNOR).

## 12 . Ecological information

- Mobility** : Not determined.
- Bioaccumulative potential** : Not determined.
- Persistence/degradability** : Not determined.
- Other information** : None known.

## 13 . Disposal considerations

- Waste disposal** : This product is not a listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261. 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.

## 14 . Transport information

Not regulated by any transport mode or International transport regulations. ADR/RID / IMDG / IATA Classes : Not regulated.

## 15 . Regulatory information

### United States

- TSCA (USA)** : All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory, have been registered, or are exempt.
- SARA / EPCRA (USA)** : None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302: Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.
- California Prop. 65** : 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.

### International regulations lists

- EINECS (Europe)** : All ingredients are listed on the European Inventory of Existing Commercial Substances (EINECS) list, have been registered on the European List of New Chemical Substances (ELINCS), or are exempt.
- REACH Status** : EU (REACH): All components of the toner formulation are registered, pre-registered or exempt under REACH. Pre-registered chemicals will be registered between 2011 and 2018.
- ENCS (Japan)** : All ingredients are listed on the Japanese Existing and New Chemical Substances (ENCS) list, have been registered, or are exempt.
- AICS (Australia)** : All ingredients are listed in Australian Inventory of Chemical Substances (AICS), have been registered, or are exempt.
- Philippines inventory (PICCS)** : All ingredients are listed on the Philippines Inventory (PICCS) or are exempt.
- Korea inventory (KECI)** : All ingredients are listed on the Korean Existing Chemicals List (ECL), have been registered, or are exempt.
- China inventory (IECSC)** : All ingredients are listed on the Chinese inventory (IECSC) or are exempt.
- Canada**

- WHMIS (Canada)** : Not controlled under WHMIS (Canada).  
**DSL/NDSL** : All ingredients are listed on the Canadian Domestic Substances List (DSL), have been registered on the Non-Domestic Substances List (NDSL), or are exempt.  
**Mexico Classification** : Health: 1 Flammability: 1 Reactivity: 0

## 16 . Other information

- Revision comments** : No significant revisions to health and safety information.  
**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.  
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**Version** : 1

### Notice to reader

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