

## ENVIRONMENTAL PRODUCT DECLARATION

# LASER PRINTER CX825DTE

According to ISO 14025



A business-class finisher option adds multi-position stapling and hole punching to a color MFP with production-level print speed of up to 55 pages per minute<sup>4</sup>, preinstalled software solutions and Extra High Yield toner. The CX825 can print one color page as fast as 6.5 seconds. In fact, it can often print short jobs before a user gets up from their chair, and minimizes waiting time when printing is initiated from the touch screen.



Lexmark's innovative imaging solutions and technologies help customers worldwide print, secure and manage information with ease, efficiency and unmatched value. Lexmark simplifies the complex intersection of digital and printed information.

As part of the commitment to our customers, Lexmark performs Life Cycle Analysis on our products. The results of the LCA analysis continues to assist Lexmark in reducing the environmental impact of the hardware, software and services offered to our customers.



# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity.



EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

PROGRAM OPERATOR	UL Solutions
DECLARATION HOLDER	Lexmark
DECLARATION NUMBER	4790837277.107.1
DECLARED PRODUCT	Laser Printer CX825dte
REFERENCE PCR	ULE (2018) Product Category Rules for preparing an environmental product declaration (EPD) for printers and multi-function printing units (v2.0). UL Environment
DATE OF ISSUE	August 1, 2023
PERIOD OF VALIDITY	5 Years
CONTENTS OF THE DECLARATION	Product definition Information about basic material and the material's origin Description of the product's manufacture Indication of product processing Information about the in-use conditions Life cycle assessment results Testing results and verifications
The PCR review was conducted by:	UL Environment Review Panel Lise Laurin (Chairperson) 31 Leach Road; Kittery, Maine 03904; lise@earthshift.com
This declaration was independently verified in accordance with ISO 14025 by Underwriters Laboratories <input type="checkbox"/> INTERNAL <input checked="" type="checkbox"/> EXTERNAL	<i>Cooper McCollum</i> Cooper McCollum, UL Solutions
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	<i>Thomas P. Gloria</i> Thomas P. Gloria, Industrial Ecology Consultants

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Product Description

Product Type	Color Laser Printer
Printer Model	CX825dte
Maximum Print Speed	55 pages per minute
Intended use	primarily office
Range of applications	print images or text in mono onto paper or paper-like media
Product Lifetime	5 years
Introduction Date	2/17/2016
Product Specifications	<a href="http://www.lexmark.com/en_US/products/series/printer-and-multifunction/finder.shtml">http://www.lexmark.com/en_US/products/series/printer-and-multifunction/finder.shtml</a>
Functional Unit	The functional unit has been defined as a 1,000 page simplex job in accordance with the Energy Star Typical Energy Consumption test procedure and the reference Product Category Rule (PCR).
Scope of Validity / Applicability	The EPD is representative for the printer model CX825dte sold as a stand-alone unit. This EPD and the reference PCR are applicable for printer sale and use in the North American market. Lexmark cannot guarantee that comparisons with EPDs of competitive products will be valid.
Product Characterization	The CX825 is the fastest letter/A4 format MFP in its class*, with print speed of up to 55 ppm and a maximum monthly duty cycle of 250,000 pages <sup>3</sup> . Even large color print jobs complete quickly so users are more productive. With a 1.6 GHz quad-core processor and 2 GB of standard memory, the CX825 has a powerful print controller to handle complex color jobs with large, high-resolution photos and graphics spanning many pages. Its exclusive high-performance graphics chip drives real productivity. The printer product delivered to the customer consists of the printer, a power cord, printed setup instructions, a hyperlink that directs customers to the User Guide and Printer Drivers and an initial set of product supplies. The printer is delivered in packaging that can be recycled locally and is not needed for product operation. Product supplies include toner cartridges, imaging kits and the fusing mechanism. The power supply is internal to the product and the imaging kit and fusing mechanism are installed at the factory. Only the toner cartridges must be installed by the customer. The printer can be setup by the customer without outside assistance.

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Technical Data

Product specifications	Lexmark CX825de	Lexmark CX825dte	Lexmark CX825dtfe
<b>Printing</b>			
Display	Lexmark e-Task 10-inch (25 cm) class color touch screen		
Print Speed: Up to <sup>1</sup>	Black: 55 ppm / Color: 55 ppm		
Time to First Page: As fast as	Black: 6.5 seconds / Color: 6.5 seconds		
Print Resolution	Black: 1200 x 1200 dpi, 4800 Color Quality (2400 x 600 dpi) / Color: 1200 x 1200 dpi, 4800 Color Quality (2400 x 600 dpi)		
Memory	Standard: 2048 MB / Maximum: 4096 MB		
Hard Disk	Included in configuration		
Recommended Monthly Page Volume <sup>2</sup>	3000 - 30000 pages		
Maximum Monthly Duty Cycle: Up to <sup>3</sup>	250000 pages per month		
<b>Copying</b>			
Copy Speed: Up to <sup>4</sup>	Black: 55 cpm / Color: 55 cpm		
Time to First Copy: As fast as	Black: 6.5 seconds / Color: 7.0 seconds		
<b>Scanning</b>			
Scanner Type / ADF Scan	Flatbed scanner with ADF / DADF (single pass Duplex)		
A4/Ltr Duplex Scan Speed: Up to	Black: 114 / 120 sides per minute / Color: 114 / 120 sides per minute		
A4/Ltr Simplex Scan Speed: Up to	Black: 57 / 60 sides per minute / Color: 57 / 60 sides per minute		
ADF Paper Input Capacity: Up to	150 pages 20 lb or 75 gsm bond		
<b>Faxing</b>			
Modem Speed	ITU T.30, V.34 Half-Duplex, 33.6 Kbps		
<b>Supplies<sup>7</sup></b>			
Laser Cartridge Yields (up to) <sup>7</sup>	22,000-page Colour (CMY) Extra High Yield Cartridges, 33,000-page Black Extra High Yield Cartridge, 17,000-page Colour (CMY) High Yield Cartridges, 8,000-page Black and Colour (CMYK) Cartridges		
Photoconductor Estimated Yield: Up to <sup>8</sup>	170000 pages, based on 3 average letter/A4-size pages per print job and ~ 5% coverage		
Developer Unit(s) Estimated Yield: Up to <sup>8</sup>	300000 pages, based on 3 average letter/A4-size pages per print job and ~ 5% coverage		
Cartridge(s) Shipping with Product <sup>1</sup>	8,000-page Black Return Program Toner Cartridge, 17,000-page Color (CMY) High Yield Return Program Toner Cartridges		
<b>Paper Handling</b>			
Included Paper Handling	550-Sheet Input, 100-Sheet Multipurpose Feeder, Integrated Duplex, 500-Sheet Output Bin	550-Sheet Input, 100-Sheet Multipurpose Feeder, Integrated Duplex, 2 x 550-Sheet Tray, 500-Sheet Output Bin	550-Sheet Input, 100-Sheet Multipurpose Feeder, Integrated Duplex, 2 x 550-Sheet Tray, 500-Sheet Output Bin, Inline Stapler
Optional Paper Handling	550-Sheet Tray, Staple Punch Finisher	Inline Stapler, 2200-Sheet Tray	550-Sheet Tray, 2200-Sheet Tray
Paper Input Capacity: Up to	Standard: 450 pages 20 lb or 75 gsm bond / Maximum: 4500 pages 20 lb or 75 gsm bond	Standard: 1750 pages 20 lb or 75 gsm bond / Maximum: 4500 pages 20 lb or 75 gsm bond	Standard: 4500 pages 20 lb or 75 gsm bond
Paper Output Capacity: Up to	Standard: 500 pages 20 lb or 75 gsm bond / Maximum: 1950 pages 20 lb or 75 gsm bond		Standard: 300 pages 20 lb or 75 gsm bond / Maximum: 300 pages 20 lb or 75 gsm bond
Media Types Supported	Card Stock, Dual Web Labels, Envelopes, Labels, Plain Paper, Polyester Labels, Vinyl Labels, Banner Paper, Refer to the Paper & Specialty Media Guide		Card Stock, Dual Web Labels, Envelopes, Labels, Plain Paper, Polyester Labels, Vinyl Labels, Refer to the Paper & Specialty Media Guide
Media Sizes Supported	10 Envelope, 7 3/4 Envelope, 9 Envelope, A4, A5, B5 Envelope, C4 Envelope, C5 Envelope, DL Envelope, Index Card, Executive, Folio, JIS-B5, Legal, Letter, 4 x 6", Statement, Universal, Oficio, A6		
<b>General Information<sup>4</sup></b>			
Standard Ports	One Internal Card Slot, USB 2.0 Specification Hi-Speed Certified (Type B), Gigabit Ethernet (10/100/1000), Two Rear USB 2.0 Specification Hi-Speed Certified ports (Type A), Two Front USB 2.0 Specification Hi-Speed Certified port (Type A)		
Optional Network Ports	Internal MarketNet N8360 802.11b/g/n Wireless, NFC		
Noise Level: Operating	Print: 56 dBA / Copy: 59 dBA / Scan: 56 dBA		
Specified Operating Environment	Humidity: 15 to 80% Relative Humidity, Temperature: 10 to 32°C (50 to 90°F), Altitude: 0 - 2890 Meters (9,500 Feet)		
Limited Warranty - See Statement of Limited Warranty	1-Year Onsite Service, Next Business Day		
Size (in. - H x W x D) / Weight (lb.)	32 x 22 x 23.15 in. / 183 lb.	45.8 x 22 x 23.15 in. / 288.9 lb.	45.8 x 25.82 x 23.15 in. / 298.9 lb.

<sup>1</sup>Average continuous black or continuous composite CMY declared cartridge yield up to this number of standard pages in accordance with ISO/IEC 19798. <sup>2</sup>Recommended Monthly Page Volume<sup>2</sup> is a range of pages that helps customers evaluate Lexmark's product offerings based on the average number of pages customers plan to print on the device each month. Lexmark recommends that the number of pages per month be within the stated range for optimum device performance, based on factors including: supplies replacement intervals, paper loading intervals, speed, and typical customer usage. <sup>3</sup>Maximum Monthly Duty Cycle<sup>3</sup> is defined as the maximum number of pages a device could deliver in a month using a multishift operation. This metric provides a comparison of robustness in relation to other Lexmark printers and MFPs. <sup>4</sup>Printers are sold subject to certain license/agreement conditions. See [www.lexmark.com/printerlicense](http://www.lexmark.com/printerlicense) for details. <sup>5</sup>Actual yield may vary based on other factors such as device speed, paper size and feed orientation, toner coverage, tray source, percentage of black-only printing and average print job complexity. <sup>6</sup>Print and copy speeds measured in accordance with ISO/IEC 24734 and ISO/IEC 24733 respectively (EISA1). For more information see: [www.lexmark.com/ISOspeeds](http://www.lexmark.com/ISOspeeds). <sup>7</sup>Product functions only with replacement cartridges designed for use in a specific geographical region. See [www.lexmark.com/regions](http://www.lexmark.com/regions) for more details.

This is a Class A device according to the FCC Rules and international electromagnetic emissions standards. This device is not intended for use in residential or domestic environments due to potential interference to radio communications.

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## System Boundary

The study considers all phases of the life cycle, as shown below.

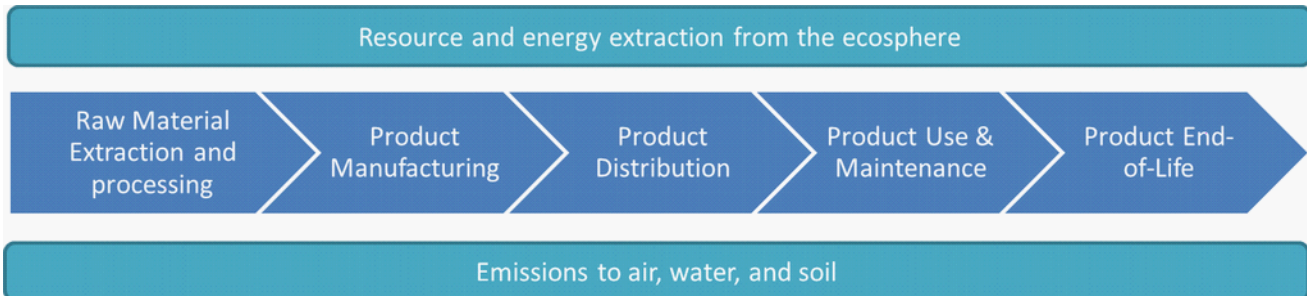


Figure 1: System Boundaries

## Declaration of Basic Materials

The printer consist of mechanical, electromechanical, and electronic components. Its material composition can be described using the basic material fractions given below. Please note that the category 'Electronics' also includes all wiring.

Material	Mass (kg)
Plastics (recyclable)	32.3
Plastics (non-recyclable)	6.55
Ferrous Metals	77.8
Aluminum	0.678
Copper	0
Glass	0
Electronics	5.54
Other Materials	0.68

Table 1: Basic Material Declaration

## Product Supply Chain

The printer is manufactured and assembled in Southeast China. The cartridges for the North American market are manufactured and assembled in Juarez, Mexico.

## ENVIRONMENTAL PRODUCT DECLARATION



Lexmark™

Laser Printer CX825dte

Printers and multi-functional printing units

According to ISO 14025

### Life Cycle Assessment Results

The following sections describe the printer's potential environmental impacts over the full printer life cycle. These represent the typical impacts for an average system sold in the North American market. All impacts are presented per functional unit of printing 1,000 images of the reference standard.

#### Manufacturing Material and Resources Inventory

Table 2 displays the use of material resources (kg) and of non-renewable as well as renewable primary energy demand necessary for printer manufacturing, but excludes other life cycle stages of the printer (cradle-to-gate). Likewise, material and energy consumption associated with printer packaging, cartridges, and paper is excluded here.

Use of Material Resources [kg]	
Non-Renewable	4.03E003
Renewable (excl. water)	6.86E003
Water	6.7E005
Use of Non-Renewable Primary Energy [MJ]	
Crude Oil	1.75E003
Hard Coal	6.28E003
Lignite	188
Natural Gas	3.48E003
Uranium	582
Use of Renewable Primary Energy [MJ]	
Biomass	0.0968
Geothermal	11.5
Solar	680
Wind	323
Hydropower	472

Table 2: Use of Material and Energy Resources for Printer Manufacturing (Cradle-to-Gate)

#### Energy Consumption During Utilization

Based on the EnergyStar Typical Energy Consumption (TEC) test methodology, the printer is expected to have the following power consumption for an assumed average job load.

	Per 1,000 page	Per product lifetime
Energy Consumption During Utilization [kWh]	0.114	224

Table 3: At-wall power consumption during utilization

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Life Cycle Impact Assessment

The following provides an overview of the potential printer life cycle impacts with emissions classified and characterized to standard environmental impact metrics using the ReCiPe 2016 Hierarchist (H) midpoint characterization factors (v1.1).

Note that the mineral resource depletion results do not include any contributions from the paper life cycle as the AF&PA report does not allow for the conversion to ReCiPe 2016.

Ecotoxicity and human health are not included in this study, as per the PCR, due to their respective uncertainties.

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Global Warming Potential [kg CO <sub>2</sub> eq.]	1.81E01	2.00E00	1.64E04	3.91E03
Ozone Depletion Potential [kg CFC-11 eq.]	1.73E-06	7.31E-07	1.43E-03	1.43E-03
Acidification Potential [kg SO <sub>2</sub> eq.]	3.01E-02	6.52E-03	1.28E01	1.28E01
Eutrophication Potential [kg P eq.]	5.98E-05	1.77E-05	3.47E-02	3.47E-02
Fossil Fuel Depletion Potential [kg oil eq.]	3.98E00	7.58E-01	1.48E03	1.48E03
Mineral Resource Depletion Potential [kg Cu eq.]	9.62E-02	3.16E-02	6.17E01	6.17E01

Table 3: Summary of Life Cycle Impact Assessment Results

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Interpretation of Results

### Dominance Analysis

Due to the 5 year lifetime and the number of pages printed per day as established by the Energy Star Typical Energy Consumption test procedure, the use phase heavily dominates the life cycle impacts. The below tables and charts display the results of the dominance analysis for each impact category addressed in Table 3.

#### Global Warming Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	4.59E-01	4.59E-01	8.97E+02	8.97E+02
Lexmark use phase <LC>	7.93E+00	1.53E+00	1.55E+04	3.00E+03
Lexmark EoL phase <LC>	4.97E-03	4.97E-03	9.71E+00	9.71E+00

Table 4: Fossil GWP100 dominance analysis [kg CO2 equiv]

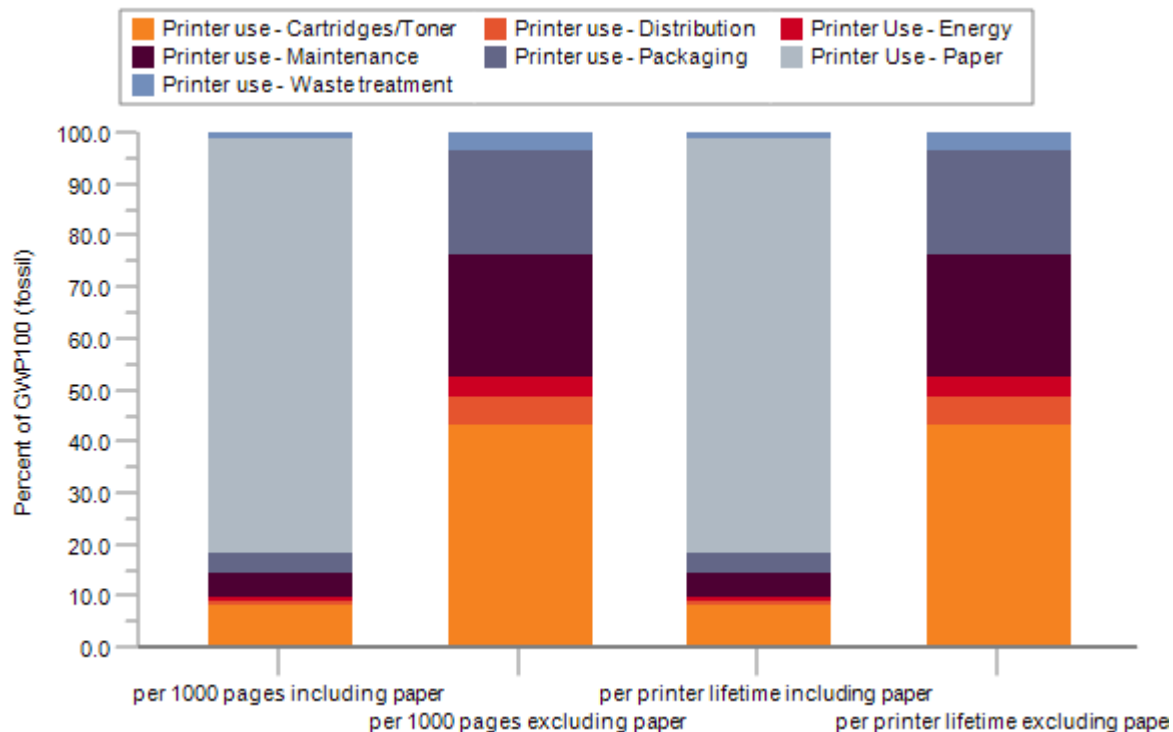


Figure 1: Fossil GWP100 dominance analysis of the use phase



# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Ozone Depletion Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	8.39E-08	8.39E-08	1.64E-04	1.64E-04
Lexmark use phase <LC>	6.44E-07	6.44E-07	1.26E-03	1.26E-03
Lexmark EoL phase <LC>	5.11E-10	5.11E-10	9.99E-07	9.99E-07

Table 5: ODP dominance analysis [kg CFC-11 equiv]

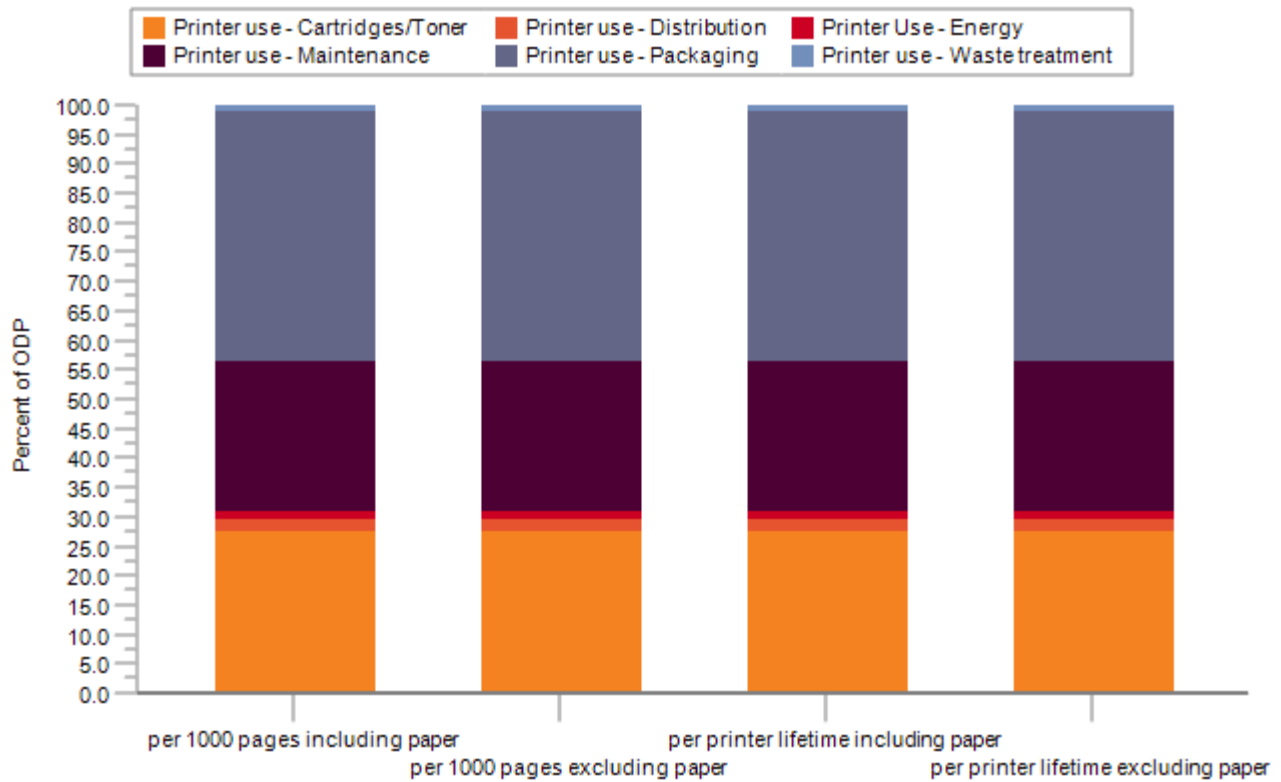


Figure 2: ODP dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Acidification Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	2.15E-03	2.15E-03	4.21E+00	4.21E+00
Lexmark use phase <LC>	4.36E-03	4.36E-03	8.52E+00	8.52E+00
Lexmark EoL phase <LC>	1.21E-05	1.21E-05	2.36E-02	2.36E-02

Table 6: AP dominance analysis [kg SO<sub>2</sub> equiv]

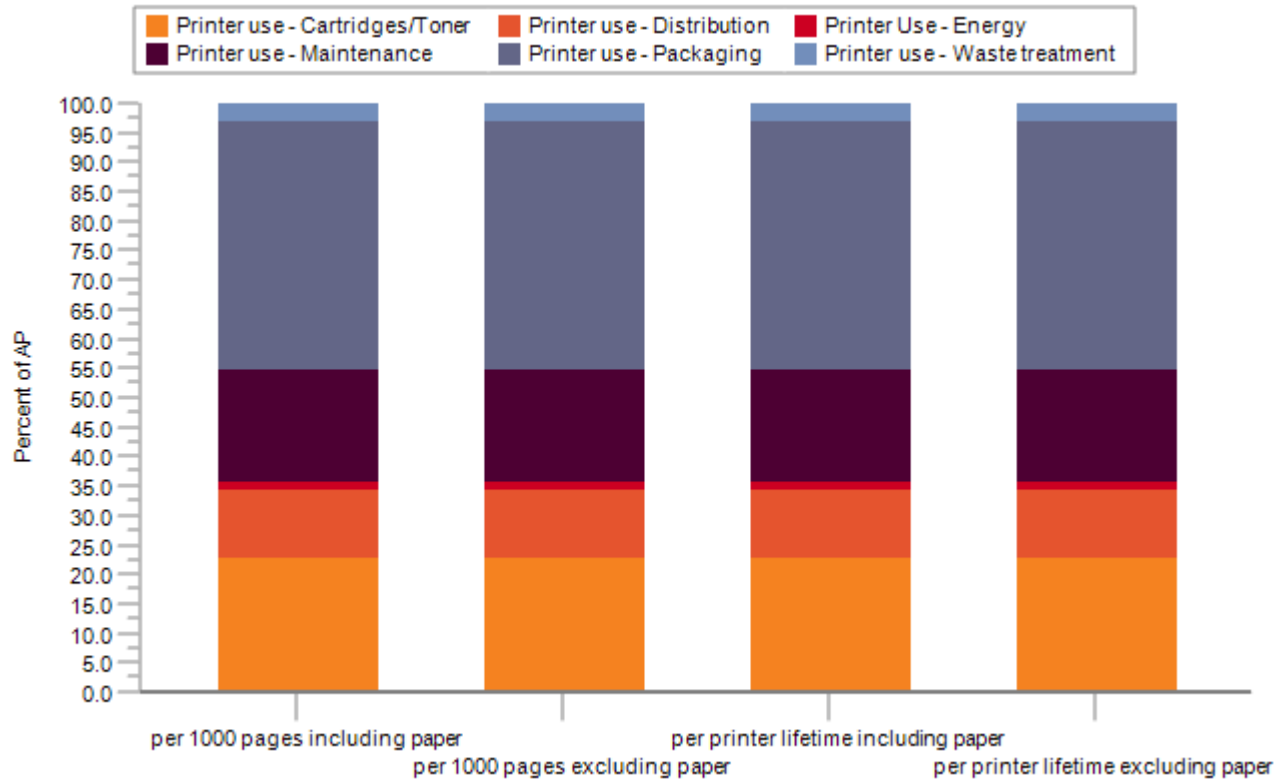


Figure 3: AP dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Eutrophication Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	1.58E-06	1.58E-06	3.08E-03	3.08E-03
Lexmark use phase <LC>	1.61E-05	1.61E-05	3.15E-02	3.15E-02
Lexmark EoL phase <LC>	2.15E-08	2.15E-08	4.21E-05	4.21E-05

Table 8: EP dominance analysis [kg P equiv]

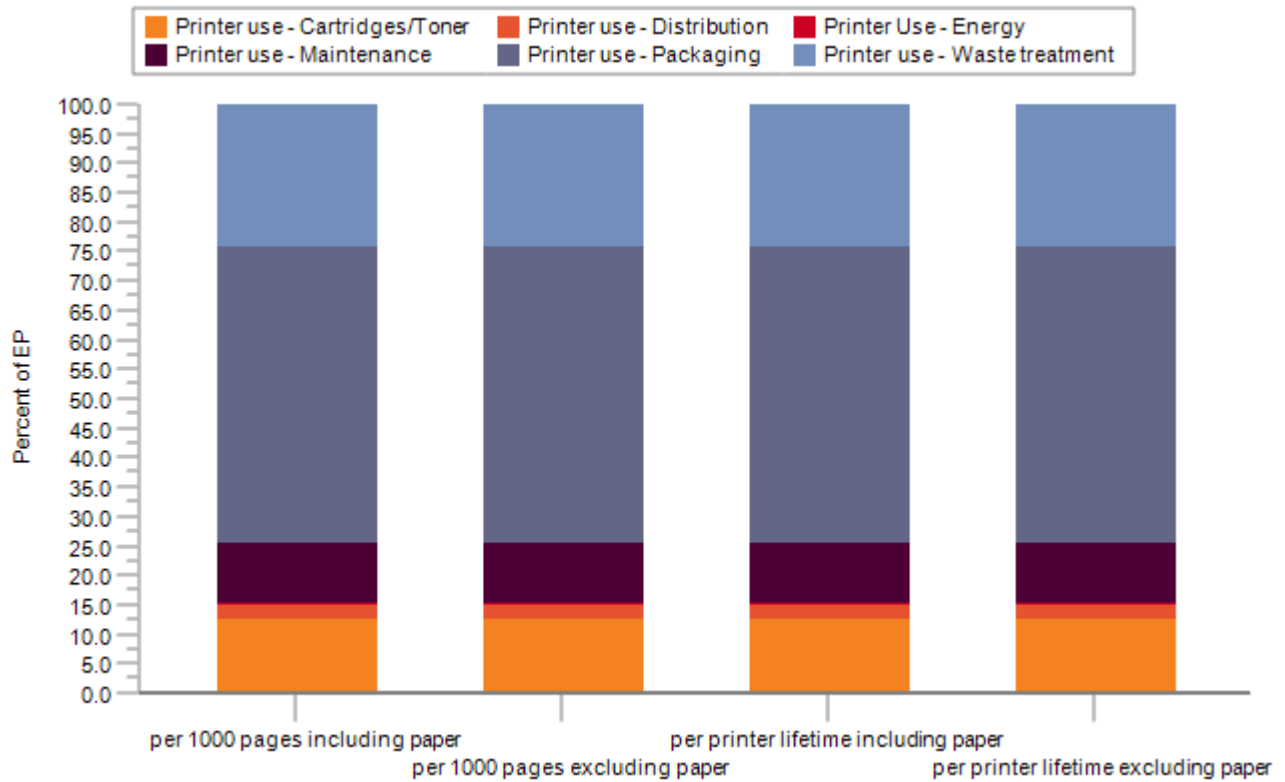


Figure 4: EP dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Fossil Fuel Depletion Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	1.44E-01	1.44E-01	2.81E+02	2.81E+02
Lexmark use phase <LC>	6.14E-01	6.14E-01	1.20E+03	1.20E+03
Lexmark EoL phase <LC>	1.65E-03	1.65E-03	3.23E+00	3.23E+00

Table 9: Fossil fuel depletion dominance analysis [kg oil equiv]

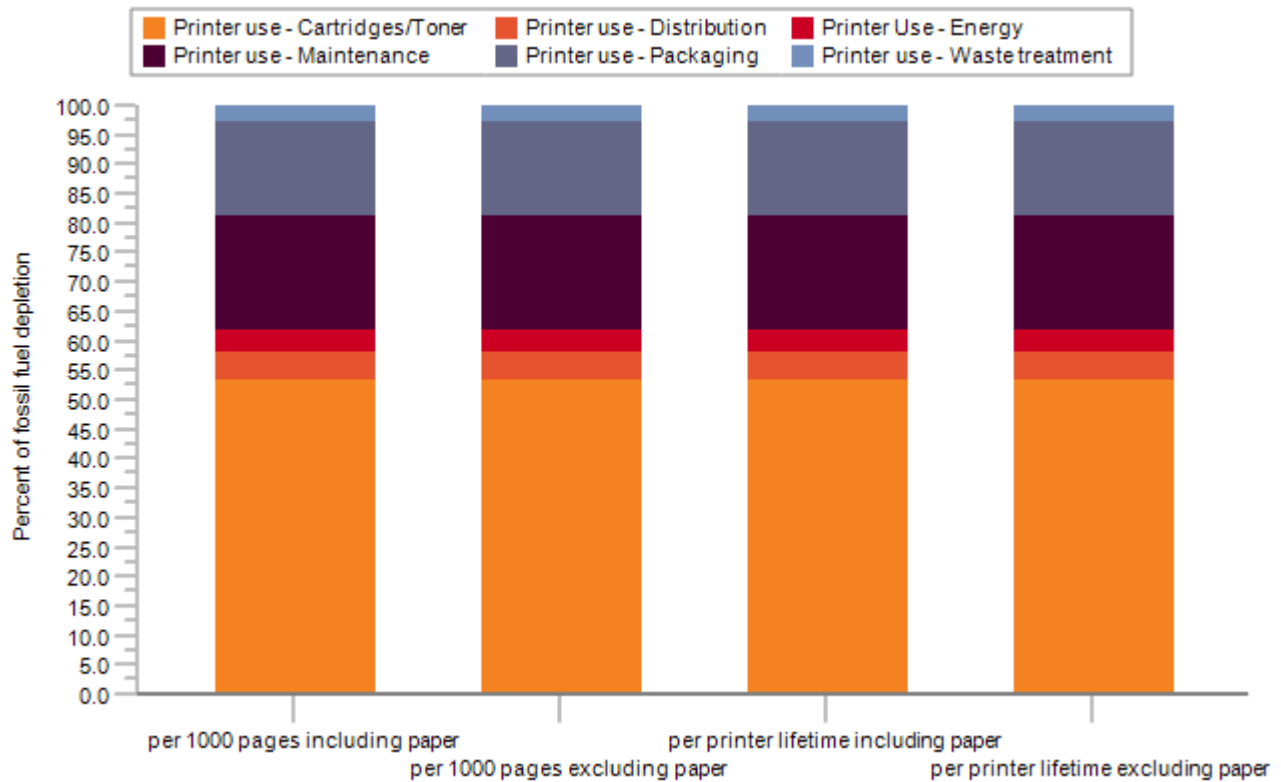


Figure 5: Fossil resource depletion dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Mineral Resource Depletion Potential

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	1.94E-02	1.94E-02	3.79E+01	3.79E+01
Lexmark use phase <LC>	1.22E-02	1.22E-02	2.38E+01	2.38E+01
Lexmark EoL phase <LC>	3.31E-05	3.31E-05	6.47E-02	6.47E-02

Table 10: Mineral resource depletion dominance analysis [MJ surplus]

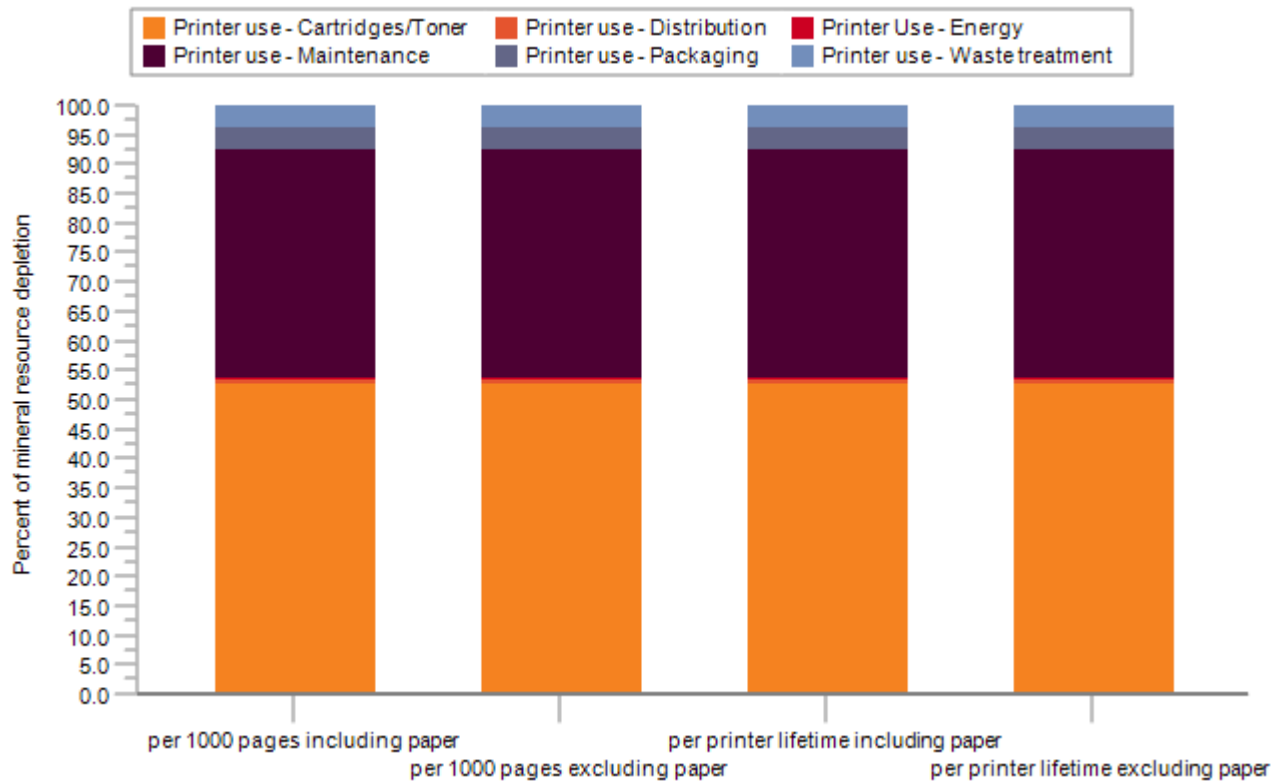


Figure 6: Mineral resource depletion dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Primary Energy Demand from Renewable and Non-renewable Resources

	per 1000 pages including paper	per 1000 pages excluding paper	per printer lifetime including paper	per printer lifetime excluding paper
Printer	7.06E+00	7.06E+00	1.38E+04	1.38E+04
Lexmark use phase <LC>	7.47E+01	2.82E+01	1.46E+05	5.52E+04
Lexmark EoL phase <LC>	7.52E-02	7.52E-02	1.47E+02	1.47E+02

Table 11: PED dominance analysis [MJ]

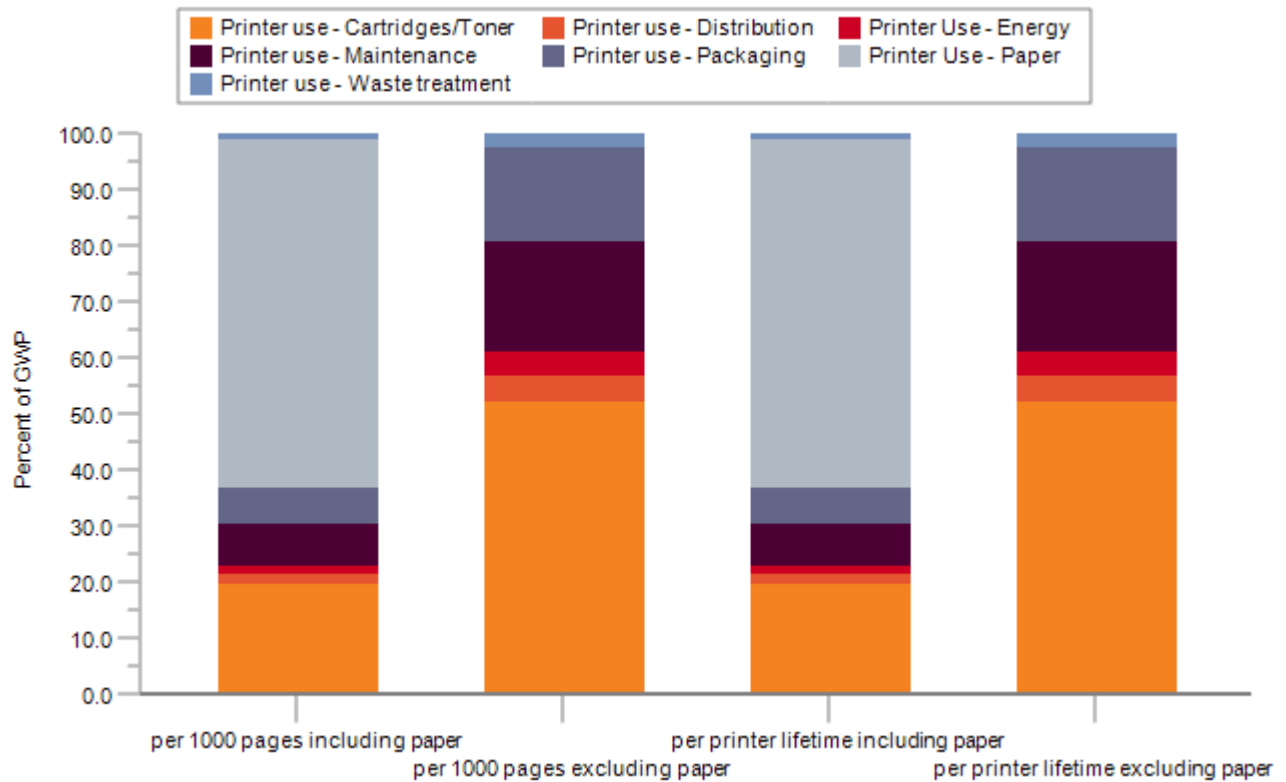


Figure 7: PED dominance analysis of the use phase

# ENVIRONMENTAL PRODUCT DECLARATION



Lexmark™

Laser Printer CX825dte

Printers and multi-functional printing units

According to ISO 14025

---

## Assumptions and Estimations

---

Assumptions and estimations follow the governing PCR on printing equipment. Full details are documented in the EPD's background report, which was provided for verification purposes alongside the EPD. The LCA results represent the specific printer model as sold in the North American market.

In line with the PCR, the model assumes a printer lifetime of five (5) years. The printer is modeled to print an average of 1.5E003 pages per day based on a maximum print speed of 55 images per minute. The printer further possesses an automatic mechanic duplexing feature.

Power consumption figures are based on Energy Star testing of the printer using the average job load described above. Consumables consumption is based on the market-average yield across all available cartridge capacities. In addition, market-average use of remanufactured cartridges is taken into account, as applicable.

Transportation distances to the end consumer are based on their points of origin and the population-weighted average distance to the 100 most populous cities in the continental US based on 2010 census data. The printer as well as replacement fuser kits and waste toner bottles are manufactured in China and shipped to the point of use from the distribution center near Memphis, TN, while the cartridges and the imaging unit are shipped from Ciudad Juarez, MX.

The LCI data for office paper is adopted from the uncoated, free sheet paper inventory developed by the American Forest & Paper Association (AF&PA). This paper dataset assumes that average office paper contains 4% recycled content. The mass of consumed paper is based on the US letter format and a surface weight of 75 g/m<sup>2</sup>. The AF&PA data includes paper production, transportation, and End-of-Life treatment (72% recycling, 23% landfill, 5% incineration).

The End-of-Life treatment for the printer is based on the assumption that 66.7 % of the printers are returned to Lexmark for recycling, while the remainder is disposed of through local waste streams, where the metal fractions are assumed to be recycled and the remainder landfilled. The EoL cartridges are assumed to go to remanufacturing, recycling, and landfill in equal shares.

In accordance with the cut-off methodology prescribed by the governing PCR, materials sent to End-of-Life recycling are considered to cross the system boundary without any further transformation. Only the impacts associated with waste transportation and disposal are included in the results.

---

## Description of Data and Period Under Consideration

---

All primary data is based on technical documentation and sales data accessed in 2022. All background data is taken from the GaBi 2022-10.6.2.9 Databases. No primary data is collected from the Original Equipment Manufacturer's manufacturing plant.

## ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

---

### Data Quality

---

Manufacturing data of printers and consumables is based on a combination of Bills of Material and teardown analyses and is considered to be of overall high quality with low uncertainty. Distribution from printer manufacturing to the end consumer is representative of logistical data from Lexmark and best estimates of US average shipping distances, and is of moderate quality and high uncertainty.

Printer power consumption represents measured power consumed during printer operation in accordance with the use scenario outlined in the reference PCR and is of high quality and moderate uncertainty; actual print loads may differ. Toner cartridge use is based on expected yields based on the ISO test standards for cartridge use, and is of high quality and low uncertainty. Replacement rate for consumable parts is based on part design specifications, and is of high quality and moderate uncertainty.

The disposition of the printer and consumables at End-of-Life is based on best-available information by the respective experts at Lexmark. This data is of average quality and moderate uncertainty.

---

### Background Data

---

All background datasets relevant to production, power generation, transportation, and material disposal were taken from the GaBi 2022-10.6.2.9 Databases.

The data used for office paper is based on the data developed for the American Forest & Paper Association (AF&PA) and is representative for average North American office paper production in 2010.

The additional use of third-party background data from industry associations (e.g., worldsteel) is documented in the background report. They represent the latest LCI data as available in the GaBi 2022-10.6.2.9 Databases.

---

### Allocation and Methodological Principles

---

No significant allocations have been considered for the production of the printer. Allocation of production or use impacts across the various functions of a multi-function system is not included (i.e., allocation of production impacts to the provision of scanning services) and the impacts from all life cycle stages are considered within the system boundaries for the printing system.

Treatment of recycled or resold material is not considered in the body of the EPD, in accordance with the cut-off methodology required by the governing PCR.

A description of all of the methodological decisions made in modeling the life cycle impacts of office paper, including descriptions of the approach to modeling carbon sequestration and paper recycling, are described in the American Forestry & Paper Association's LCA report on printing and writing papers.



# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## Additional Environmental Information

As required by the governing PCR, the assessment of human toxicity and ecotoxicity shall be included in this additional information section. The following metrics, which are based on the scenario 'per printer lifetime including paper' can help identify toxicity hot spots, but decision-making should also consider an exposure assessment.

	USEtox - Ecotoxicity [CTUe]	USEtox - Human toxicity (cancer) [CTUh]	USEtox - Human toxicity (non-cancer) [CTUh]
Printer use - Cartridges/Toner	2.54E01	4.15E-06	7.37E-09
Printer use - Distribution	5.40E-01	1.14E-09	2.28E-10
Printer Use - Energy	6.27E-02	7.10E-09	1.34E-10
Printer use - Maintenance	5.13E00	1.76E-06	3.13E-09
Printer use - Packaging	1.03E00	9.96E-08	8.26E-07
Printer use - Waste treatment	2.58E-01	5.90E-10	1.12E-10

## ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

---

### References and Standards

---

- EPA (2013) ENERGY STAR Program Requirements for Imaging Equipment – Test Method (Rev. Jun-2013)  
[https://www.energystar.gov/sites/default/files/FINAL%20Version%202.0%20Imaging%20Equipment%20Program%20Requirements%20%28Rev%20Oct-2014%29\\_0.pdf](https://www.energystar.gov/sites/default/files/FINAL%20Version%202.0%20Imaging%20Equipment%20Program%20Requirements%20%28Rev%20Oct-2014%29_0.pdf)
- ISO (2006a) ISO 14025: Environmental labels and declarations – Type III environmental declarations – Principles and procedures. International Organization for Standardization. Geneva.
- ISO (2006b) ISO 14040: Environmental management - Life cycle assessment – Principles and framework. International Organization for Standardization. Geneva.
- ISO (2006c) ISO 14044: Environmental management - Life cycle assessment – Requirements and guidelines. International Organization for Standardization. Geneva.
- NCASI (2010) Life Cycle Assessment of North American Printing and Writing Paper Products – Final Report. Prepared for the American Forest and Paper Association (AF&PA) and the Forest Products Association of Canada (FPAC) by the National Council for Air and Stream Improvement, Inc. Research Triangle Park, NC
- thinkstep (2018) GaBi ts Product Sustainability Software. thinkstep AG, Leinfelden-Echterdingen. <http://www.gabi-software.com>
- ReCiPe (2016) *ReCiPe* methodology for Life Cycle Impact Assessment, version 1.1. Available at [www.lcia-recipe.net](http://www.lcia-recipe.net)
- ULE (2018) Product Category Rules for preparing an environmental product declaration (EPD) for printers and multi-function printing units (v2.0). UL Environment. Washington, DC.

## ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

---

## Contact Information

---



Lexmark International, Inc.  
740 W. New Circle Road  
Lexington, KY 40550  
Tel: +1-859-232-2000

## ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

---

### LCA/EPD Verifier:

Thomas P. Gloria, Ph. D.  
Industrial Ecology Consultants  
35 Bracebridge Rd.  
Newton, MA 02459-1728  
direct: 617.553.4929  
email: [t.gloria@industrial-ecology.com](mailto:t.gloria@industrial-ecology.com)

Dr. Gloria is a certified Life Cycle Professional (LCACP) through the American Center for Life Cycle Assessment.

# ENVIRONMENTAL PRODUCT DECLARATION



Laser Printer CX825dte  
Printers and multi-functional printing units

According to ISO 14025

## EU REACH (EC1907/2006) Substances of Very High Concern Disclosure



As a producer and supplier of articles Lexmark International, Inc. (Lexmark) has an obligation under Article 33 of the REACH Regulation (EC 1907/2006) to communicate information on Substances of Very High Concern (SVHC) present in a concentration greater than 0.1% weight by weight of that article.

A complete list of the candidate list of Substances of Very High Concern is found on the European Chemicals Agency web site: <https://echa.europa.eu/candidate-list-table>

### Company:

Lexmark International Technology Hungária  
Kft. 8 Lechner Ödön fasor  
Millennium Tower III  
1095 Budapest  
HUNGARY  
Contact: [Sustainability@lexmark.com](mailto:Sustainability@lexmark.com)

Lexmark declares that the products listed below are free of substances listed on the Candidate List of Substances of Very High Concern in a concentration above 0.1% weight by weight of that article as of the date of this disclosure except as listed below. Any substances listed below may be contained in articles above the threshold level. None are expected to be released from the component parts identified or to result in exposure during normal and expected use of Lexmark Imaging Equipment.

### Scope of Disclosure:

All Printing and Imaging Equipment under the Lexmark Brand, including options and service parts.

Note: Cartridge and Imaging Unit supplies do not contain any SVHC substances.

Substance Name	EC Number	CAS Number	Endocrine Disruptor?	Use Cases
1,2-dimethoxyethane	203-794-9	110-71-4	No	Coin cell battery electrolyte. Battery found on main printed circuit board
Lead	231-100-4	7439-92-1	No	Found in some high temperature solder, some machining steels (shafts/roller), some Brass parts
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	No	found in the Display (Operator Panel)
Lead monoxide (lead oxide)	215-267-0	1317-36-8	No	leaded glass used in circuit boards, capacitors and ceramic heaters
Diboron trioxide	215-125-8	1303-86-2	No	found in ceramic heaters
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	204-327-1	119-47-1	No	Paper pick roll

Note: Previous declarations included 3 substances in a printhead adhesive. Although present in the adhesive formulation, these substances react upon curing and are present only in residual levels below 1000 ppm in the final product.

Lexmark includes requirements for the disclosure of substances on the Candidate List of Substances of Very High Concern in agreements with our suppliers, per the [Lexmark Environmental Product Specification](#).

The statements in this disclosure are declared to be true and accurate to the knowledge of Lexmark as of the date of this disclosure. This disclosure is subject to change based on Lexmark receiving updated information from suppliers, changes to the product or the addition of new substances on the Candidate List of Substances of Very High Concern.

Christina Cullins  
WW Materials Compliance Manager  
Corporate Sustainability Group  
Lexmark International Inc.

Date of Disclosure: July 7, 2022