

Product environmental attributes - THE ECO DECLARATION

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).

Additional information regarding each item may be found under P14.

Brand *	Lenovo	Logo
Company name *	Lenovo	
Contact information *	Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5J3 Morrisville, North Carolina 27560 alcarter@lenovo.com	lenovo.
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	t.html
Additional information		

	The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.				
Type of product *	otebook PC				
Commercial name *	Lenovo G405				
Model number *	20239;80A9				
Issue date *	2013-4-27				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information					

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality (Control	Requireme	nt met
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	\boxtimes	
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control such as organized by IT-Företagen (see www.itecodeclaration.org).	ol 🛛	

Model number *	Lenovo G405		
Issue date *	2013-4-27	Logo	lenovo.

Product	environmental attributes - Legal requirements	Require	men	t met
Item	<u> </u>	Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)			
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	\boxtimes		
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),			
	hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.4*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	\boxtimes		
P1.5*	Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).			
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)			
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5 microgram/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.			
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.lenovo.com/social_responsibility/us/en/ThinkGreen_products.html#environment			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes		
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)			
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	\boxtimes		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	\boxtimes		
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	S		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\boxtimes		
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).			\boxtimes
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			X
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium an hexavalent chromium by weight of these together.	d 🔀		
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	al 🔀		
Ì	Commont. Logar reference has no maximum concentration values.			

Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

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Issue date *	2013-4-27	Logo	lenovo.

Product	environmental attributes - Market requirements - Environmental conscious design	equire	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes		
P7	Design Disassembly, recycling	_		
P7.1*	Parts that have to be treated separately are easily separable	\square		
P7.2*	Plastic materials in covers/housing have no surface coating.		Ħ	一一
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	X	П	Ħ
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		П	Ħ
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		Ħ	Ħ
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		Ħ	Ħ
_	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		П	П
P7.8*	Upgrading can be done using commonly available tools		Ħ	Ħ
P7.9.	Spare parts are available after end of production for: 5 years			Ħ
P7.10	Service is available after end of production for: 5 years			Ħ
	Material and substance requirements			
P7.11*	Product cover/housing material type:			
	Material type: <i>PC+ABS-FR(40)</i> Material type: Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.		\boxtimes	
P7.13	Electrical cable insulation materials of signal cables are PVC free		\overline{X}	Ħ
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.			Ħ
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See			П
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: <i>FR(40)</i>			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components):			
	TBBPA (additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according			
	ISO 1043-4: Brominated Epoxy Resin See P14	ш		ш
P7.18	Alt. 1			
	Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%:			
	Comment: No legal limits exist, this is a market requirement.			
	Provide a list of all used flame retardants including MSDS for each flame retardant. The list must contain			
	complete chemical name, CAS number and supplier. 1. Chemical name: , CAS #: , Supplier:			
	2. Chemical name: , CAS #: , Supplier:			
	3. Chemical name: , CAS #: , Supplier:			
	Alt. 2	\boxtimes		
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4: FR(40)			
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20	Of total plastic parts' weight >25g, recycled material content is 3.0%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury	\boxtimes		
P8	Batteries			
P8.1*	Battery chemical composition: Lithium Ion/Lithium Manganese Dioxide			
P8.2	Batteries meet the requirements of the following voluntary program/s: US RBRC			

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

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D			B

roduct environmental attributes - Market requirements (continued) Requirement met					met
Item	Yes No I			n.a.	
P9 Energy consumption					
	ne following power lev ipped w/ WOL Enable		mptions are reporte	ed: See P14	
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference / Standard for energy modes and test method *	
Peak (On-max)	<i>65</i> W	<i>65</i> W	<i>65</i> W	Full load	
Category B					
Idle State - WOL Enabled	7.044W	7.041 W	7.292 W	Use for Energy Star V5 registration(P _{idle})	
Sleep (S3) - WOL Enabled	1.115 W	1.108 W	1.166W	Use for Energy Star V5 registration(P _{sleep})	
Sleep (S3) - WOL Disabled	1.047 W	1.040 W	1.101 W	Reference	
Off (S5) - WOL Enabled	<i>0.306</i> W	0.300 W	<i>0.373</i> W	Use for Energy Star V5 registration(Poff)	
Off (S5) - WOL Disabled	0.255 W	0.255 W	<i>0.308</i> W	Use for EuP	
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	0.069 W	0.072 W	0.122 W		
TEC Typical Energy Consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Energy Consumption	21.097 kWh/year	21.051 kWh/year	22.145 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.6 + P_{sleep} \times 0.1 + P_{idle} \times 0.3)$	
P _{off} : Off Mode(S5) - WOL Enabled; P _{sleep} : Sleep Mode(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled					
Display resolution : 1280*8	00 Megapixels				
Print Speed :	Images per minu	te			
Default time to enter energy s	save mode: 25 minute	S			
P9.2* Information about	the energy save fund	tion is provided with	the product.		
ENERGY STAR® Others specify: E	ts the energy requiren version: <i>Version 5.0</i> nergy Star for Extern	dated July 1, 2009	Product category:	B	
P10 Emissions	Declared according	to ISO 0006			
P10.1 Mode	 Declared according Mode description 	10 100 9290 T	$\begin{array}{c} \text{Declared} \\ \text{A-weighted} \\ \text{sound power} \\ \text{level } L_{W\text{Ad}} \left(\text{B} \right) \end{array}$		
Idle	* HDD: Idle	<u>-</u>	* 3.1	23.2	
Operation	* HDD: Operating		* 3.1	23.9	
Other mode		_			
Measured accord	ing to: ISO7779 Other		ed by ECMA-74 with	h L _{pAm} measurement distance m)	
P10.2 The product man	te the acquetic noice i				

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Product 6	environmental attributes - Market requirements (continued)	Require	ment	met		
Item	•	Yes	No	n.a.		
	Chemical emissions from printing products					
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard , other specify:			\boxtimes		
P10.4	Typical emission rate (print phase) is (mg/h):			\boxtimes		
	Dust Ozone Styrene Benzene TVOC					
P10.5	Chemical emission requirements of the following voluntary program/s are met for :			\boxtimes		
	Dust Ozone Styrene Benzene TVOC					
	Electromagnetic emissions					
P10.6	program/s: MPR-II					
P11	Consumable materials for printing products					
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).			\boxtimes		
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements o EN12281.			\boxtimes		
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			X		
P12	Ergonomics for computing products					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	\boxtimes				
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.					
P13	Packaging and documentation					
P13.1*	Product packaging material type(s): Corrugated Carton weight (kg): 0.378 Product packaging material type(s): Polyethylene Cushions weight (kg): 0.081					
	Product packaging material type(s): Others weight (kg):0.230					
P13.2*	Product plastic packaging is free from PVC.					
P13.3*	Specify media for user and product documentation (tick box):					
	Electronic , Paper , Other			_		
P13.4*						
P14	Additional information (See Note B4)					
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implie					
	information contained in this document. All information provided by supplier in this document is provided base					
	knowledge available at the time of completion, and supplier shall have no obligation to update such information provided here is approximate and provided for informational purposes only. See a Lenovo Account Representation			lion		
	information.	anve ioi				
P7.17	Product does not contain free TBBPA in printed circuit boards(without components)>25g.					
P9	See Energy Star Qualified (insert appropriate Product type; i.e. Desktop, Notebook, etc.) for the latest	informat	ion:			
	http://downloads.energystar.gov/bi/qplist/laptops_prod_list.xls (insert appropriate web url)					

Note B4: Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2,3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

Lenovo ErP Lot3 Information Sheet

- PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo G405	Logo
Model Number	20239, 80A9	_
Issue Date	2013/5/20	lenovo.
Additional information		

(d)	year of mar	nufacture:						2013
(e)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display:						22.56	
(f)	E TEC valuenabled:	ie (kWh) per	ErP Lot 3 Cat	tegory and cap	ability adjustme	nts applied w	hen all discrete graphics c	ards (dGfx) are
	Category	В	Etec 22.15					
(g)	idle state po	ower deman	d (Watts);					7.23
(h)	sleep mode	power dem	and (Watts);					1.11
(i)	sleep mode	with WOL e	enabled power	demand (Wat	ts) (where enabl	led);		1.18
j)	off mode po	ower deman	d (Watts);					0.38
(k)	off mode with WOL enabled power demand (Watts) (where enabled);					0.31		
(I)	internal pov	ver supply e	ficiency at 10	%, 20 %, 50 %	and 100 % of r	ated output p	power (if applicable):	
	10%	20%	50%	100%	Average			
(m)	external por	wer supply e	fficiency (if ap	plicable):				
	10%	20%	50%	100%	Average	•		
(o)	or level V the minimu	m number o	loading cycle	s that the batte	eries can withsta	and (applies o	only to notebook computers):	500
(f)	test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing:							
				23	0V/50Hz			
(p-1)	the measu efficiency:	rement met	hodology use	d to determin	ne information	mentioned in	n points (I) - internal PSL	I
	-			Energy-st	ar requirement	t		
(p-2)		rement met	hodology use	d to determine	e information m	nentioned in	points (m) - external PSU	I
	efficiency:				NA			

(p-3)	the n batter		nent methodology used to determine information mentioned in points (o) - loadingcycles			
			Energy-star requirement			
(p-4)			ent methodology used to determine information mentioned in maximum, idle, sleep, off mode ed in Point P9.1 in the Product IT Eco Declaration:			
			Energy-star requirement			
(q)	seque	ence of st	eps for achieving a stable condition with respect to power demand::			
			Based on user manual			
(r)	descr	iption of h	now sleep and/or off mode was selected or programmed:			
			Based on user manual			
(s)	seque off mo		vents required to reach the mode where the equipment automatically changes to sleep and/or			
	On mi	ouc.	Based on user manual			
<i>(</i> 1)						
(t)			f idle state condition before the computer automatically reaches sleep mode, or another n does not exceed the applicable power demand requirements for sleep mode (in minutes):	<i>25</i>		
(u)	the length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes): N/A					
(v)	the le	ngth of ti	ime before the display sleep mode is set to activate after user inactivity (in minutes):	10		
(w)	w) information on the energy-saving potential of power management functionality:					
Based on user manual						
(x)	user information on how to enable the power management functionality:					
Based on user manual						
(z)	test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing:					
			230V/50Hz			
Addition	n Notebo	ok Batter	ry Information:			
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed and replaced by a not user.	n-professional		
			The battery[ies] in this product cannot be easily replaced by users themsel	ves		
Additional information						