

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 *		Logo		
Company name *	Lenovo			
Contact information *	Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com	lenovo.		
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment.html			
Additional information	The latest version of this document can be found at http://www.lenovo.com/social_responsibility/us/en/datasheets_	notebooks.html		

	pased on product specification or test results based obtained from sample testing), that the product its given in this declaration.
Type of product *	Notebook PC
Commercial name *	Lenovo N50-80
Model number *	20440;80HB
Issue date *	2014-11-30
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	ent met
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration		
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).	l 🔀	

Model number *	Lenovo N50-80		
Issue date *	2014-11-30	Logo	lenovo

1 TOULC	oduct environmental attributes - Legal requirements			met
Item		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.			
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).	\boxtimes		
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)			\boxtimes
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/materials.html			
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).			
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).	\boxtimes		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\square		
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).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			\square
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 and hexavalent chromium by weight of these together.	I 🔀		
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	\boxtimes		
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	I 🔀		

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

Model number *	Lenovo N50-80		
Issue date *	2014-11-30	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			
D7.4*	Disassembly, recycling		_	
P7.1*	Parts that have to be treated separately are easily separable		<u>Ц</u>	Щ.
P7.2*	Plastic materials in covers/housing have no surface coating.		\boxtimes	
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.	\boxtimes		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes		
P7.8*	Upgrading can be done using commonly available tools	\boxtimes		
P7.9.	Spare parts are available after end of production for: 5 years Service shall be able to support the spare			
	parts and service after end of production for 5 years upon material availability in the market			
P7.10	Service is available after end of production for: 5 years Service shall be able to support the spare parts			
	and service after end of production for 5 years upon material availability in the market			
P7.11*	Material and substance requirements Product cover/housing material type:			
F7.11	Material type: BAYER FR3021 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		$\overline{\boxtimes}$	
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		$\overline{\Box}$	$\overline{\Box}$
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See	Ħ		Ħ
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4:	\boxtimes		
P7.17	Marking: Alt. 1			
F1.11	Chemical specifications of flame retardants in printed circuit boards >25g (without components):			
	TBBPA (additive) , TBBPA (reactive) , Other; chemical name: , CAS #:	ш	ш	
	Alt. 2			
	Chemical specifications of flame retardants in printed circuit boards (without components) >25g according		Ш	
D7 10	ISO 1043-4: Brominated Epoxy Resin See P14			
P7.18	Alt. 1 Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in			
	concentrations above 0.1%:	ш		
	Comment: No legal limits exist, this is a market requirement.			
	1. Chemical name: , CAS #:			
	2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #: Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
	one mean operations of manner rotal author in placing parters and according to the in-	\boxtimes		
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,		\boxtimes	
D7.00	R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20 P7.21	Of total plastic parts' weight >25g, recycled material content is 5.28%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is %. Light sources are free from mercury			
. 1.22	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		Ш	
P8	Batteries			
P8.1*	Battery chemical composition: Li-ion			
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.

Model number *	Lenovo N50-80		
Issue date *	2014-11-30	Logo	lenovo.

	environinientai at	tributes - Market	requirements (continueu)	Requirement ii	
Item					Yes No i	n.a.
P9	57 · · · · · · · · · · · · · · · · · · ·					
9.1 For the product the following power levels or energy consumptions are reported: See P14						
Energy mo	de *	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)	65 W	65 W	65 W	Full load	
Category I1						
	State - WOL Enabl	led 6,22536 W	6.16548 W	6.53532 W	Use for ENERGY STAR V6 registration (P _{idle})	
			4.03884 W	4.26912 W		
	State - WOL Enable - WOL Enabled	0.555768 W	0.559272 W	0.621024 W	Use for ENERGY STAR V6 registration (P _{idle})	
	- WOL Enabled - WOL Disabled	0.555768 W	0.559272 W	0.621024 W	Use for ENERGY STAR V6 registration(P _{sleep}) Reference	<u> </u>
	WOL Enabled	0.190284 W	0.195504 W	0.26076 W	Use for ENERGY STAR V6 registration(P _{off})	
	WOL Disabled	0.190284 W	0.195504 W	0.26076 W	Use for EuP	
Category						
	<u> </u>	led			Use for ENERGY STAR V6 registration(Pidle)	
Long Idle	State - WOL Enable	ed			Use for ENERGY STAR V6 registration(P _{idle})	\exists
	- WOL Enabled				Use for ENERGY STAR V6 registration (P _{sleep})	\exists
	- WOL Disabled				Reference	
Off (S5) - 1	WOL Enabled				Use for ENERGY STAR V6 registration(Poff)	
Off (S5) - I	WOL Disabled				Use for EuP	
EPS No-loa	ad	0.073 W	0.080 W	0.152W		
	ower supply / charg	er				
	the wall outlet but ed from the product	,				
disconnect	ea from the product	.)				
PTEC *						
	ergy Consumption					
TEC *						X
Typical En	ergy Consumption	kWh/week	kWh/week	kWh/week		
ETEC *		22.00 W	21.88 W	23. 39 W	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35)$	
	ergy Consumption	22.00 VV	21.00 VV	23. 39 W	+ P _{long_Idle} x 0.10+ P _{short_Idle} x 0.30)	ш
	3, 11 11				is long_tale is error a short_tale is errory	
		Poff: Off Mode(St	5) - WOL Enabled; F	P _{sleep} : Sleep Mode((S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Display res	solution* : 1366*768	3 Megapixels				
Print Speed	d * : Im	nages per minute				
Default tim	e to enter energy sa	ave mode: 25 minutes	 S			
P9.2*	Information about t	the energy save func	tion is provided wi	th the product.		$\overline{\sqcap}$
P9.3*	The product meets	the energy requirem	ents of the followi	ng voluntary pro		
		version: Version 6.1			Product category:	
	Others specify:					\Box
P10	Emissions					
D40.4		Declared according	to ISO 9296		D 1 14 111	
P10.1	Mode	Mode description		Declared A-weighted	Declared A-weighted	
				sound power	er $\frac{300000 \text{ person}}{200000000000000000000000000000000000$	
				level $L_{W\!Ad}$ ((B) Operator position Bystander positions	
					Desktop (only if product is not	
					or Desk side operator attended)	
	Idle *	HDD:Idle		* 3.0	25.7	
	Operation *	HDD: Operating		* 3.1	26.2	
	Other mode					
	Measured according	ng to: 🔲 ISO7779 🗌	ECMA-74			
		Other	· ·	•	with L _{pAm} measurement distance m)	
P10.2	The product meets	the acoustic noise re	equirements of the	e following volunt	tary program/s:	

Model nur	nber *	Lenovo N50-80					
Issue date	*	2014-11-30	Logo	len	OVO.		
Product	environn	nental attributes - Market requirements (continued)		Requ	iremer	nt m	et
Item				Ye	es No	n.	.a.
	Chemica	al emissions from printing products					
P10.3*	Test per	formed according to ECMA-328 (ISO/IEC 28360) standard, other specify:					X
P10.4	Typical e	emission rate (print phase) is (mg/h):					7
		Dust Ozone Styrene Benzene TVOC					
P10.5	Chemica	al emission requirements of the following voluntary program/s are met for :] [] [\leq
			TVOC				
		nagnetic emissions					
P10.6		er display meets the requirement for low frequency electromagnetic fields of the foll	owing volunt	ary	1 L		
P11	program	/s: nable materials for printing products					
P11.1*		Data Sheet (SDS) is available for the ink/toner preparation, even if not legally requ	ired (see P4	3)		1	
P11.2*		ontaining post-consumer recycled fibers can be used, provided that it meets the		_	┽┾		<u> </u>
	EN1228	1.	e requireme	nts oi] [2	<u> </u>
P11.3*	2-sided (duplex) printing/copying is an integrated product function.] [] [\times
P12		nics for computing products					
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technolo	gies.] [] [
P12.2*	The phys	sical input device meets the requirements of ISO 9995 and ISO 9241-410.] [J
P13		ng and documentation					
P13.1*	Product Product	packaging material type(s): Corrugated Carton weight (kg): 0.336 packaging material type(s): Polyethylene Cushions weight (kg): 0.070 packaging material type(s): Others weight (kg): 0.123					
P13.2*	Product	plastic packaging is free from PVC.] [] [
P13.3*		media for user and product documentation (tick box): ic , Paper , Other					
P13.4*		er user and product documentation, please specify contained percentage of post-co	nsumer recy	rcled]
P14		nal information (See Note B4)					
	informati knowled	Supplier makes no representations, guarantees, assurances or warranties whether ion contained in this document. All information provided by supplier in this documer ge available at the time of completion, and supplier shall have no obligation to updathere is approximate and provided for informational purposes only. See a Lenovo A	nt is provided ate such infor	based on mation. Th	supplier e inform	's atior	1

See Energy Star Qualified Notebooks & Tablet Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CO

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.

information.

P9

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 N50-80	Logo
Model Number	20440,80HB	_
Issue Date	2014 /11/30	lenovo.
Additional information		

/ N					
(d)	year of manufacture:	2014			
(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:				
(f)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are enabled: Cat B				
(g)	idle state power demand (Watts);	6. 42			
(h)	sleep mode power demand (Watts);	0.65			
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	NA			
(j)	off mode power demand (Watts);	0.25			
(k)	off mode with WOL enabled power demand (Watts) (where enabled);				
(I)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):				
	10% 20% 50% 100% Average				
(m)	external power supply efficiency (if applicable):				
	10% 20% 50% 100% Average 65W: 87.58%;87.60%;88.32%;89.04	%;89.92%;89.18%;			
	or Level: V				
(o)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook compu	uters): 300 cycles			
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:				
	230V/50Hz, Total Harmonic Distortion <2 %				

(p-1)	the measu	urement methodology used to determine information mentioned in points (I) - internal PSU			
	cindicitoy.	NA			
(p-2)	the measu	urement methodology used to determine information mentioned in points (m) - external PSU			
	efficiency:	Energy-star requirement			
(n. 2)	th				
(p-3)	batteries:	urement methodology used to determine information mentioned in points (o) - loadingcycles			
(= 4)		IEC 61960 measurement methodology			
(p-4)		rement methodology used to determine information mentioned in maximum, idle, sleep, off mode defined in Point P9.1 in the Product IT Eco Declaration:			
		Energy-star requirement			
(q)	sequence	of steps for achieving a stable condition with respect to power demand::			
		Based on user manual			
(r)	description	of how sleep and/or off mode was selected or programmed:			
		Based on user manual			
(s)	sequence off mode:	of events required to reach the mode where the equipment automatically changes to sleep and/or			
		Based on user manual			
(t)	the duration	on of idle state condition before the computer automatically reaches sleep mode, or another			
		which does not exceed the applicable power demand requirements for sleep mode (in minutes):	25		
(u)		of time after a period of user inactivity in which the computer automatically reaches a de that has a lower power demand requirement than sleep mode (in minutes):	NA		
(v)	the length	of time before the display sleep mode is set to activate after user inactivity (in minutes):			
	J		10		
(w)	information	n on the energy-saving potential of power management functionality:			
		Based on user manual			
(x)	user inform	nation on how to enable the power management functionality:			
		Based on user manual			
(z)	the electric	eters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of city supply system, — information and documentation on the instrumentation, set-up and circuits ectrical testing:			
		230V/50Hz, Total Harmonic Distortion <2 %			
Addition Notebook Battery Information:					
Yes	No n/a		non-professional		
		The battery[ies] in this product cannot be easily replaced by users thems	selves		

Iditional information	