

## 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.

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Company name *	Lenovo			
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Additional information	The latest version of this document can be found at			
	http://www.lenovo.com/social_responsibility/us/en/datasheets_i	notebooks.html		

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 *	Notebook			
Commercial name *	Lenovo YOGA 510-14AST, Lenovo ideapad FLEX 4-1435			
Model number *	80S9, 80SC			
Issue date *	2016/7/16			
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 contributes as organized by IT-Företagen (see www.itecodeclaration.org).	ol 🔀	

Model number *	80S9, 80SC		
Issue date *	2016/7/16	Logo	Lenovo

Product	environmental attributes - Legal requirements	equire	ment	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,	$\boxtimes$		
	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).	$\boxtimes$		
D4.0*	Comment: Legal reference has no maximum concentration value.		_	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	$\boxtimes$		
	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		$\overline{\Box}$	
1 1.4	terphenyl (PCT) in preparations (see legal reference).		Ш	
P1.5*	Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the			
1 1.0	chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).		ш	
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS),			X
	Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference).	ш	ш	
	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			$\boxtimes$
	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			$\boxtimes$
	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	$\boxtimes$		
	microgram/cm²/week (see legal reference).			
54.40*	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):	$\boxtimes$		
	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	$\boxtimes$		
	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			
D0.0*	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	$\boxtimes$		
P2.3*	accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)  Batteries and accumulators are easily removable by either users or service providers (as dependent on the	$\boxtimes$		
F2.3	design of the product). Exception: Batteries that are permanently installed for safety, performance, medical		Ш	Ш
	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).			
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	$\overline{\mathbb{X}}$	∺	H
			-	-
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).	$\boxtimes$	Ш	Ш
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		Ш	$\boxtimes$
P4.2*	legal reference and Note B1).  If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			
		<u> </u>	<u> </u>	
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the			$\boxtimes$
	product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these			
DE	requirements is available (see legal reference).			
<b>P5</b> P5.1*	Product packaging and packaging components do not contain more than 0.01% load moreury cadmium and			
75.1	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	$\boxtimes$	Ш	
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	$\boxtimes$		
			<del>  </del>	<del>-</del>
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol		Ш	
	(see legal reference).  Comment: Legal reference has no maximum concentration values.			
	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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Product	duct environmental attributes - Market requirements - Environmental conscious design Requiremen				
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	$\boxtimes$			
P7.2*	Plastic materials in covers/housing have no surface coating.		$\overline{\boxtimes}$		
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.		$\overline{\Box}$		
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		┪	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).		$\overline{H}$	$\overline{}$	
	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			$\dashv$	
P7.10	Service is available after end of production for: 5 years			╁	
1 7	Material and substance requirements				
P7.11*	Product cover/housing material type:				
	Material type: Teijin GV-3530UH Material type: Bayer FR3002 Material type: Bayer FR	3021			
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.		$\overline{\Box}$		
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note B2)				
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking:				
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				
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.  1. Chemical name: Teijin GV-3530UH, CAS #:  2. Chemical name: Bayer FR3002, CAS #:  3. Chemical name: Bayer FR3021, CAS #:  Alt. 2				
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4: FR(40)	$\boxtimes$			
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 0 %.				
P7.21	Of total plastic parts' weight >25g, biobased material content is <b>0%</b> .				
P7.22	Light sources are free from mercury	$\boxtimes$			
	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg				
P8	Batteries				
P8.1*	Battery chemical composition: Li-ion Polymer			<del>-</del>	
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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	uct environmental attributes - Market requirements (continued)  Requirement met					
P9 Energy consumpt	ion			Yes No	n.a.	
9.1 For the product the following power levels or energy consumptions are reported: See P14						
Energy mode *	Power level at	Power level at		Reference / Standard for energy modes and test		
3,	100 V AC	115 V AC	230 V AC	method *		
Peak (On-max)	65 W	65 W	65 W	Full load		
Category I2		l				
Short Idle State - WOL Enable	ed 7.319 W	7.346 W	<b>7.329</b> W	Use for ENERGY STAR V6 registration (Pidle)		
Long Idle State - WOL Enable	ed 4.82 W	4.778 W	4.84 W	Use for ENERGY STAR V6 registration (Pidle)		
Sleep (S3) - WOL Enabled	0.31 W	0.315 W	0.379 W	Use for ENERGY STAR V6 registration(P <sub>sleep</sub> )		
Sleep (S3) - WOL Disabled	0.343 W	0.398 W	0.35 W	Reference		
Off (S5) - WOL Enabled	0.208 W	0.209 W	0.265 W	Use for ENERGY STAR V6 registration(P <sub>off</sub> )	$\exists$	
Off (S5) - WOL Disabled	0.268 W	0.309 W	0.265 W	Use for EuP	Ħ	
Category I1						
Short Idle State - WOL Enable	ed 6.03 W	5.72 W	5.869 W	Use for ENERGY STAR V6 registration(Pidle)		
Long Idle State - WOL Enable	ed 3.623 W	3.592 W	3.909 W	Use for ENERGY STAR V6 registration(P <sub>idle</sub> )	H	
Sleep (S3) - WOL Enabled	0.304 W	0.309 W	0.41 W	Use for ENERGY STAR V6 registration (P <sub>sleep</sub> )	H	
Sleep (S3) - WOL Disabled	0.357 W	0.348 W	<b>0.34</b> W	Reference	H	
Off (S5) - WOL Enabled	0.206 W	0.212 W	0.3 W	Use for ENERGY STAR V6 registration(P <sub>off</sub> )	H	
Off (S5) - WOL Disabled	0.273 W	0.267 W	0.265 W	Use for EuP	H	
EPS No-load	0.046 W	0.051 W	0.112 W		H	
(External power supply / charge		0.007 11	0.772 **			
plugged in the wall outlet but						
disconnected from the product.	)					
PTEC *	W	W	W			
Typical Energy Consumption						
TEC *						
Typical Energy Consumption	kWh/week	kWh/week	kWh/week			
					igsquare	
ETEC * Annual Energy Consumption	<b>24.588</b> kWh/year	<b>24.613</b> kWh/year	<b>27.594</b> kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35 + P_{long, ldle} \times 0.10 + P_{short, ldle} \times 0.30)$		
, , , , , , , , , , , , , , , , , , ,	,	,, <b>,</b>	,	- long-late		
		5) - WOL Enabled; I	P <sub>sleep</sub> : Sleep Mode	(S3) - WOL Enabled; P <sub>idle</sub> : Idle State - WOL Enabled		
Display resolution*: 1366*768					Ш	
•	ages per minute					
Default time to enter energy say						
	ne energy save funct		<u>'</u>			
•	the energy requirem version: Version 6.1			gram/s:		
Others specify:	reision. Version 0.1	rier. 7 Froduct	category. NBT		H	
P10 Emissions						
	Declared according to lode description	to ISO 9296	Declared	Declared A-weighted		
Wode IV	lode description		A-weighted	sound pressure level $L_{\text{max}}$ (dB)		
			sound power	51 D - (	1	
			level $L_{WAd}$ (	B) Operator position Bystander positions  Desktop		
				or Desk side (only if product is not		
Idle *	HDD:Idle		2.8	operator attended)		
Operation *	HDD: Operating		4.2	34.2		
Other mode					_	
Measured according	_					
P10.2 The product meets	Other			with L <sub>pAm</sub> measurement distance m)		
r 10.2 The product meets	P10.2 The product meets the acoustic noise requirements of the following voluntary program/s:					

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Issue date	*	2016/7/16	Logo	_eno	VO.	
	environn	nental attributes - Market requirements (continued)		Require		
Item				Yes	No	n.a.
		al emissions from printing products				
P10.3*		formed according to ECMA-328 (ISO/IEC 28360) standard, other specify:				$\boxtimes$
P10.4	Typical e	emission rate (print phase) is (mg/h):				$\boxtimes$
	[	Dust Ozone Styrene Benzene TVOC				
P10.5	Chemica	ll emission requirements of the following voluntary program/s are met for :				X
			TVOC			
		nagnetic emissions				
P10.6	program/		owing voluntary			
P11		able materials for printing products				
P11.1*	A Safety	Data Sheet (SDS) is available for the ink/toner preparation, even if not legally requ	ired (see P4.3).			$\times$
P11.2*	Paper co EN12281	ontaining post-consumer recycled fibers can be used, provided that it meets th 1.	e requirements o	f		
P11.3*	2-sided (	duplex) printing/copying is an integrated product function.				X
P12	Ergonon	nics for computing products				
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technology	gies.			$\boxtimes$
P12.2*	The phys	sical input device meets the requirements of ISO 9995 and ISO 9241-410.				$\boxtimes$
P13	Packagi	ng and documentation				
P13.1*		packaging material type(s): PAPER weight (kg): 0.361				
		packaging material type(s): <b>EPE</b> weight (kg): <b>0.060</b>				
P13.2*		packaging material type(s): LDPE weight (kg): 0.021			_	
		plastic packaging is free from PVC.			<u>Ш</u>	Щ
P13.3*		media for user and product documentation (tick box): ic ☑, Paper ☑, Other ☑				Ш
D40.4*						
P13.4*	fiber: 80	er user and product documentation, please specify contained percentage of post-co %	nsumer recycled			Ш
P14		nal information (See Note B4)				
	informati knowled	Supplier makes no representations, guarantees, assurances or warranties whether on contained in this document. All information provided by supplier in this document 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 on.	it is provided base ate such informatio	d on supp n. The inf	lier's ormati	ion
P9		rgy Star Qualified Notebooks & Tablet Computers for the latest information: ww.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.

# 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 YOGA 510-14AST, Lenovo ideapad FLEX 4-1435	Logo
Model Number	80S9, 80SC	Lanava
Issue Date	2016/7/16	<b>Lenovo</b> ®
Additional information		

2016
ds (dGfx) are
ds (dGfx) are
A: 5.44 B: 4.84
A: 0.37 B: 0.38
NA
A: 0.27 B: 0.27
NA
300 cycles
_

(p-4)	the measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration:					
	IEC 62623 / IEC EN50564:2011 measurement methodology					
(q)	sequence of steps for achieving a stable condition with respect to power demand::					
	IEC 62623 / IEC EN50564:2011 measurement methodology					
(r)	description of how sleep and/or off mode was selected or programmed:					
	Based on user manual					
(s)	sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:					
Based on user manual						
(t)	the duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): 30min					
(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):  NA					
(v)	the length of time before the display sleep mode is set to activate after user inactivity (in minutes):  10min					
(w)	information on the energy-saving potential of power management functionality:					
refer to user manual						
(x) user information on how to enable the power management functionality:						
refer to 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, Total Harmonic Distortion <2 %						
Addition Notebook Battery Information:						
Yes		No	n/a	This notebook computer is operated by battery/ies that cannot be accessed by a non-professional user.	and replaced	
(Battery replaceable	not user )	(Battery user replaceable)		The battery[ies] in this product cannot be easily replaced themselves	d by users	
Additional information						