

## 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 *	ThinkPad	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			
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			

	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 PC				
Commercial name *	ThinkPad S540/S5-S540				
Model number *	M/T: 20B3				
Issue date *	2014, June 13				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information					

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Quality	Control F	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).		

Model number *	ThinkPad S540/S5-S540	M/T: 20B	3	
Issue date *	2014, June 13	Log	go	lenovo.

Product	environmental attributes - Legal requirements	Require	men	t met
Item	<b>y</b> 1	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)			
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).	<b>S</b>		
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).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			$\boxtimes$
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.		<u> </u>	
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 Montree Protocol (see legal reference).  Comment: Legal reference has no maximum concentration values.	al 🔀		

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

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Product	t environmental attributes - Market requirements - Environmental conscious design Re	quire	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	$\boxtimes$	$\Box$	$\Box$
P7.2*	Plastic materials in covers/housing have no surface coating.			Ħ
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.			$\blacksquare$
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		Ħ	Ħ
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		$\overline{H}$	$\dashv$
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	X	Ħ	$\overline{H}$
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	$\square$	$\overline{\Box}$	$\overline{}$
P7.8*	Upgrading can be done using commonly available tools		H	Ħ
P7.9.	Spare parts are available after end of production for: 5 years			$\dashv$
P7.10				H
1 7.10	Service is available after end of production for: 5 years  Material and substance requirements			
P7.11*	Product cover/housing material type:			
	Material type: <i>PC+ABS-FR(40)</i> Material type: <i>PC-FR (40)</i> Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.	$\Box$	$\boxtimes$	
P7.13	Electrical cable insulation materials of signal cables are PVC free	Ħ		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		Ħ	$\blacksquare$
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: FR (40)			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) , TBBPA (reactive) , Other ; chemical name: DOPO(9,10-dihydro-9-oxa-10-phosphaphenanthrene-10-oxide), CAS #: 35948-25-5			
D7.40	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: FR (40)			
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: , CAS #: 2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #:			
	Alt. 2			
	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 0%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury	$\boxtimes$		
Do	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg			
<b>P8</b> P8.1*	Batteries  Battery chemical composition: Lithium Ion/Lithium Manganese Dioxide			
P8.2	Batteries meet the requirements of the following voluntary program/s: <i>US Call2Recycle, EPBA, JBRC</i>			井
10.2	Datteries meet the requirements of the following voluntary program/s. US Canznecycle, EPDA, JDNC			- 1

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 *	ThinkPad S540/S5-S540	M/T: 20	<b>B</b> 3	
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Product	environmental att	nvironmental attributes - Market requirements (continued) Requirement r			nt met	
Item					Yes N	n.a.
P9	Energy consumpti					
9.1	For the product the	following power leve	els or energy cons	umptions are re	ported: See P14	
Energy mo	ode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference / Standard for energy modes and te method *	st 🔲
Peak (On-	-max)	<i>65</i> W	<i>65</i> W	<i>65</i> W	Full load	
Categor	<u>γ                                    </u>					
Short Idle	- WOL Enabled	10.4046 W	10.37808 W	10.40748 W	Use for Energy Star V6 registration(PSHORT_IDL	) 🔲
Long Idle	- WOL Enabled	<i>5.88192</i> W	<i>5.9046</i> W	7.32072 W	Use for Energy Star V6 registration(PLONG_IDLE	
Sleep (S3)	) - WOL Enabled	0.401352 W	0.40092 W	0.417492 W	Use for Energy Star V6 registration(P <sub>SLEEP)</sub>	
Sleep (S3)	) - WOL Disabled	W	W	W	Reference	
Off (S5) -	WOL Enabled	0.245172 W	0.245304 W	<i>0.262536</i> W	Use for Energy Star V6 registration(P <sub>OFF</sub> )	
Off (S5) -	WOL Disabled	W	W	W	Use for ErP	
EPS No-lo		W	0.096 W	<b>0.252</b> W		
	power supply / ugged in the wall					
	disconnected from					
the produc	ii.)	W	W	W		+
	nergy Consumption	,,,	,,,			
TEC *		kWh/week				+
-	nergy Consumption		kWh/week	kWh/week		
ETEC *		<b>34.26</b> kWh/year	34.21	35.62	$E_{TEC} = (8760/1000) \times (P_{OFF} \times T_{OFF} + P_{SLEEP} \times T_{OFF})$	
Annual En	ergy Consumption		kWh/year	kWh/year	TSLEEP + PLONG_IDLE × TLONG_IDLE + PSHORT_IDLE TSHORT_IDLE)	к 🗀
					- SHORT_IDLE/	_
Display res	solution* : 1366x 76	8, 1920x1080 Pixels				
Print Spee	ed * : Ima	ages per minute				
Default tim	ne to enter energy sa	ve mode: 20 minutes	S			
P9.2*	Information about the	he energy save func	tion is provided wi	th the product.		
P9.3*		the energy requirem				
	ENERGY STAR® \ Others specify:	version: Version 6.0	dated June 2, 20	014 Tier:	Product category: I1	]
P10	Emissions					
1 10		Declared according	to ISO 9296			
P10.1		Node description		Declared	Declared A-weighted	
				A-weighted	Sound pressure level L <sub>n</sub> A <sub>m</sub> (ub)	
				sound power level $L_{WAd}$ (	. D	S
				level L <sub>WAd</sub> (	Desktop 🖂	┛
					or Desk side (only if product is no operator attender	
	Idle *	Idle mode		* 2.9	21	
	Operation *	Operating		* 3.3	24	
	Other mode					
	Measured according	g to: ISO7779				
P10.2	The product mosts	Other			with L <sub>pAm</sub> measurement distance m)	
i- 10.2	10.2 The product meets the acoustic noise requirements of the following voluntary program/s:				ary program/s.	

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Product 6	environmental attributes - Market requirements (continued)	equire	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(3 pin AC adapter only)					
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*	2* Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.					
P11.3*	2-sided (duplex) printing/copying is an integrated product function.					
P12	Ergonomics for computing products					
P12.1*	* The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.					
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.					
P13	3 Packaging and documentation					
P13.1*	Product packaging material type(s): 80% Recycled Corrugated Cardboard Product packaging material type(s): 100% Recycled Molded Pulp Cushions Product packaging material type(s): Others (plastic bags)  weight (kg): 0.509 weight (kg): 0.240 weight (kg): 0.020					
P13.2*	Product plastic packaging is free from PVC.	$\boxtimes$				
P13.3*	Specify media for user and product documentation (tick box):					
	Electronic , Paper , Other					
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0%					
P14	Additional information (See Note B4)					
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, regarding the information contained in this document. All information provided by supplier in this document is provided based on supplier's knowledge available at the time of completion, and supplier shall have no obligation to update such information. The information provided here is approximate and provided for informational purposes only. See a Lenovo Account Representative for more information.					
P9	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.

## 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