

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 *	Alvin L Carter 1009 Think Place Building 2 / 5J3 Morrisville, North Carolina 27560 alcarter@lenovo.com	lenovo	
Internet site *	www.pc.ibm.com/ww/lenovo/about/environment		
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 *	Notebook PC			
Commercial name *	ThinkPad L512			
Model number *	M/T: 2597/2598/2599/2550/4444/4447			
Issue date *	2010, April 27			
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other			
Additional information	ENERGY STAR® 5.0 Qualified; EPEAT Gold Rating, GREENGUARD Certification			

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 *	ThinkPad L512 M	N/T: 2597/2598/2599/2550/4444/4447		
Issue date *	2010, April 27		Logo	lenovo

Product	roduct environmental attributes - Legal requirements				
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/environment.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)				
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).				
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	$\overline{\mathbb{X}}$			
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).		П	\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 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.	l 🔀			

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

Model number *	ThinkPad L512	M/T: 2597/2598/2599/2550/4	1444/4	1447
Issue date *	2010, April 27		Logo	lenovo

Product		Require	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).		Ш	Щ
P7	Design Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable		$\overline{}$	
P7.2*	Plastic materials in covers/housing have no surface coating.			∺
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.		$\stackrel{ riangle}{\vdash}$	+
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		井	╫
P7.5			뷰	
	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		ᄴ	
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).			Щ
P7.7*	Product lifetime			
	Upgrading can be done e.g. with processor, memory, cards or drives		井	-
P7.8*	Upgrading can be done using commonly available tools			
P7.9.	Spare parts are available after end of production for: 5 years			Ц.
P7.10	Service is available after end of production for: 5 years			
5= 444	Material and substance requirements			
P7.11*	Product cover/housing material type: Material type: PC+ABS Material type: Material type:			
P7.12	Material type: PC+ABS Material type: Material type: Electrical cable insulation materials of power cables are PVC free.	$\overline{}$		$\overline{}$
P7.13	Electrical cable insulation materials of signal cables are PVC free	╬	\overline{X}	╬
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		-	₩
P7.14				-
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note B2)		\boxtimes	
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4:		$\overline{}$	
	Marking: FR(40)		ш	
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	\boxtimes		
	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: <i>Triphenyl Phosphate</i> , CAS #: 115-86-6, Supplier: <i>The M. F. Cachat Co.</i>			
	2. Chemical name: , CAS #: , Supplier:			
	3. Chemical name: , CAS #: , Supplier:	\boxtimes		
	Alt. 2 Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:		ш	
	FR(40)			
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,	\boxtimes		
	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 10%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is <i>0</i> %.			
P7.22	Light sources are free from mercury			
P8.1*	Batteries Rettory chamical composition: Lithium Ion/Lithium Managenese Diovide			
	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.

Model number *	ThinkPad L512	2 M/T: 2597/2598/2599/2550/4444/4447		1447
Issue date *	2010, April 27		Logo	lenovo

Product 6	uct environmental attributes - Market requirements (continued) Requirement me					met
Item	Yes No n					n.a.
P9	5,7 ** ** 1**					
9.1		e following power lev pped w/ WOL Enable		mptions are reporte	ed: 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	
Categor	v A			I .	1	1
	- WOL Enabled	12.31 W	12.35 W	12.70 W	Use for Energy Star V5 registration(P _{idle})	
Sleep (S3)	- WOL Enabled	0.79 W	0.82 W	0.96 W	Use for Energy Star V5 registration(P _{sleep})	
Sleep (S3)	- WOL Disabled	0.75 W	0.79 W	0.90 W	Reference	
Off (S5) - 1	WOL Enabled	0.65 W	0.67 W	0.84 W	Use for Energy Star V5 registration(Poff)	
Off (S5) - I	WOL Disabled	0.60 W	0.61 W	0.79 W	Use for EuP	
charger plu outlet but d the product	oower supply / ugged in the wall lisconnected from	W	W	W		
TEC Typical Ene	ergy Consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Ene	ergy Consumption	36.5 kWh/year	36.7 kWh/year	38.6 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) - WC	DL Enabled; P _{idle} : Idle State - WOL Enabled	
Display res	solution : 1366x76	68 Megapixels				
Print Speed	d :	Images per minut	te			
Default tim	e to enter energy sa	ave mode:	minutes			
P9.2*	Information about	the energy save fund	tion is provided with	the product.		
P9.3*	ENERGY STAR®	s the energy requiren version: Version 5.0 nergy Star for Extern	dated July 1, 2009	Product category:	A 🖂 🗀	
P10	Emissions					
D40.4		- Declared according	to ISO 9296	Deeless d	De alessed A suscission of	
P10.1	Mode	Mode description		Declared A-weighted sound power level L_{WAd} (B)		-
	Idle	* HDD: Idle		* 2.9	21	1 🖂
	Operation	* HDD: Operating		* 3.2	29	۱Ħ
	Other mode					1 '''
	Measured according to: ISO7779 ECMA-74 Other (only if not covered by ECMA-74 with L _{pAm} measurement distance m)					
P10.2	The product meet	s the acoustic noise r	equirements of the f	following voluntary r	orogram/s:	- 1 - 1

Model number *	ThinkPad L512	M/T: 2597/2598/2599/2550/4	1444/4	1447
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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	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s: <i>MPR-II</i>			
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 of EN12281.			
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			\boxtimes
P12	Ergonomics for computing products			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies. See P14	\boxtimes		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410. See P14		Ħ	
P13	Packaging and documentation			
P13.1*	Product packaging material type(s): Corrugated Cardboard weight (kg): 0.610			
	Product packaging material type(s): <i>Polyethylene (RLDPE)</i> weight (kg): <i>0.190</i>			
P13.2*	Product packaging material type(s): Others (Plastic bags) weight (kg): 0.021			
	Product plastic packaging is free from PVC.	\boxtimes		Щ.
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% (<i>Japan only</i> 70%)			Ш
P14	Additional information (See Note B4)			
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied information contained in this document. All information provided by supplier in this document is provided based 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 information.	l on supp n. The info	lier's ormati	
P7.17	Product does not contain free TBBPA in printed circuit boards(without components)>25g.			
P9	See Energy Star Qualified Notebooks & Tablet Computers for the latest information:			
D40.4	http://downloads.energystar.gov/bi/qplist/laptops_prod_list.xls	-44!		
P12.1	Product is designed to meet the subject ISO Standard 9241-307, but is not confirmed through formal te			
P12.2	Product is designed to meet the subject ISO Standard 9995 and 9241-410, but is not confirmed through methods.	rormal t	est	

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