


THE ECO DECLARATION



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 *	IdeaPad	
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	
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment.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 *	Notebook PC
Commercial name *	Lenovo Ideapad U450/U450P, ZHAOYANG E45
Model number *	M/T:20031,20032,2693,3389
Issue date *	2009, July 10
Intended market *	<input checked="" type="checkbox"/> Global <input type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
Additional information	ENERGY STAR® Qualified; EPEAT GOLD Rating*; GREENGUARD Certified

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Quality Control		Requirement met	
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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).	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Model number *	Lenovo Ideapad U450,U450P,ZHAOYANG E45 M/T:20031,20032,3389,2693		
Issue date *	2009,July 10	Logo	lenovo

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain lead max 0.1%, cadmium max 0.01%, mercury max 0.1%, hexavalent chromium max 0.1%, polybrominated biphenyls (PBB) max 0.1% and polybrominated diphenyl ethers (PBDE) max 0.1% (see legal reference and ^{Note 1}).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.4*	Products do not contain polychlorinated biphenyl (PCB) max 0.005% by weight, polychlorinated terphenyl (PCT) max 0.005% by weight (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.5*	Products do not contain short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP max 0.1% (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3-dibromopropyl)-phosphate (TRIS), Tris-(aziridiny)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.7*	Textile and leather parts with direct skin contact do not contain Azo colorants that split aromatic amines max 0.003% by weight (see legal reference and Note 1).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 1).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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/MSDS) in accordance with these requirements (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain lead, mercury, cadmium and hexavalent chromium max 0.01% by weight of these together.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note 1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

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Product environmental attributes - Market requirements - Environmental conscious design		Requirement 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).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7	Design			
	Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.2*	Plastic materials in covers/housing have no surface coating.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.8*	Upgrading can be done using commonly available tools	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.9.	Spare parts are available after end of production for: 5 years			<input type="checkbox"/>
P7.10	Service is available after end of production for: 5 years			<input type="checkbox"/>
	Material and substance requirements			
P7.11*	Product cover/housing material type: Material type: PC+ABS Material type: Material type:			
P7.12	Electrical cable insulation material of power cables are halogen free (including PVC). (See Note 1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.13	Electrical cable insulation material of signal cables are halogen free (including PVC). (See Note 1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.14	All cover/housing plastic parts >25g are halogen free. (See Note 1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.15	All printed circuit boards (without components) >25g are halogen free. (See Note 2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: ISO FR(40): Halogen-free organic phosphorus compounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) <input type="checkbox"/> , TBBPA (reactive) <input checked="" type="checkbox"/> , Other; chemical name: , CAS #:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: Brominated Epoxy Resin See P14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.19	Of total plastic parts' weight >25g, recycled material content is 0% .			
P7.20	Of total plastic parts' weight >25g, biobased material content is 0% .			
P7.21	Light sources are free from mercury If mercury is used specify: Number of lamps: 0 and max. mercury content per lamp: 0 mg	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P8	Batteries			
P8.1*	Battery chemical composition: Lithium-ion, Manganese Dioxide Lithium			<input type="checkbox"/>
P8.2	Batteries meet the requirements of the following voluntary program/s: US RBRC			<input type="checkbox"/>

Note 1 For cables, covers & housing plastic parts and plastic packaging materials in this standard; halogens include fluorine, chlorine, bromine, and iodine.

Note 2 In accordance with JPCA-ES-01; printed wiring boards must not contain more than 0.09% by weight (900ppm) of chlorine or bromine.

Model number *	Lenovo Ideapad U450,U450P,ZHAOYANG E45 M/T:20031,20032,3389,2693		
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Product environmental attributes - Market requirements (continued)					Requirement met		
Item					Yes	No	n.a.
P9 Energy consumption							
9.1 For the product the following power levels or energy consumptions have been measured:							
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 *	<input type="checkbox"/>		
Peak (On-max)	65 W	65 W	65 W	Full load	<input type="checkbox"/>		
On Idle	15.01 W	15.08 W	15.22 W	Idle State (Category B) for ES	<input type="checkbox"/>		
Power save Mode1	0.74 W	0.75 W	0.84 W	Sleep w/ WOL Enable for ES	<input type="checkbox"/>		
Power save Mode2	0.91 W	0.96 W	1.03 W	Sleep w/ WOL Disable for ES	<input type="checkbox"/>		
Off	0.55 W	0.56 W	0.65 W	Standby w/ WOL Disable for ES	<input type="checkbox"/>		
	W	W	W		<input type="checkbox"/>		
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	0.23 W	0.22 W	0.27 W		<input type="checkbox"/>		
PTEC * Typical Energy Consumption	43.16 W	43.38 W	45.15 W		<input type="checkbox"/>		
TEC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week		<input type="checkbox"/>		
Default time to enter energy save mode: _____ minutes					<input type="checkbox"/>		
P9.2*	Information about the energy save function is provided with the product.				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P9.3*	The product meets the energy requirements of the following voluntary program/s: ENERGY STAR® version Version 5.0 dated July 1,2009 Tier: Others specify: Energy Star for External Power Supplies Eligibility Criteria Version 2				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P10 Emissions							
Noise emission – Declared according to ISO 9296							
P10.1	Mode	Mode description	Declared A-weighted sound power level $L_{WA,d}$ (B)	Declared A-weighted sound pressure level L_{pAm} (dB)			
				Operator position <input checked="" type="checkbox"/>	Bystander positions <input type="checkbox"/>	(only if product is not operator attended)	
				Desktop <input checked="" type="checkbox"/>			
				or Desk side <input type="checkbox"/>			
	Idle	* Idle	* 2.6	26		<input type="checkbox"/>	
	Operation	* Operation	* 3.2	32		<input type="checkbox"/>	
	Other mode						
	Measured according to: <input checked="" type="checkbox"/> ISO7779 <input type="checkbox"/> ECMA-74 <input type="checkbox"/> Other (only if not covered by ECMA-74 with L_{pAm} measurement distance m)						
P10.2	The product meets the acoustic noise requirements of the following voluntary program/s:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical emissions from printing products							
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard <input type="checkbox"/> , other specify:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P10.4	Typical emission rate (print phase) is (mg/h):						
	Dust	Ozone	Styrene	Benzene	TVOC		
P10.5	Chemical emission requirements of the following voluntary program/s are met for :				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Dust <input type="checkbox"/>	Ozone <input type="checkbox"/>	Styrene <input type="checkbox"/>	Benzene <input type="checkbox"/>	TVOC <input type="checkbox"/>		
	Benzene <input type="checkbox"/>	TVOC <input type="checkbox"/>					
Electromagnetic emissions							
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s: MPR-II				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
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).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.3*	2-sided (duplex) printing/copying is an integrated product function.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P12 Ergonomics for computing products				
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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): 0.058 Product packaging material type(s): Others weight (kg): 0.230			
P13.2*	Product plastic packaging is halogen free (including PVC). (See Note 1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13.3*	Specify media for user and product documentation (tick box): Electronic <input checked="" type="checkbox"/> Paper <input checked="" type="checkbox"/> Other <input type="checkbox"/>			<input type="checkbox"/>
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber. 70-80%			<input type="checkbox"/>
P14 Additional information				
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://downloads.energystar.gov/bi/qplist/laptops_prod_list.xls			
P12.1	Product is designed to meet the subject ISO Standard 9241-307, but is not confirmed through formal test methods.			
P12.2	Product is designed to meet the subject ISO Standard 9995 and 9241-410, but is not confirmed through formal test methods.			

NOTE

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.

Note 1 For cables, covers & housing plastic parts and plastic packaging materials in this standard; halogens include fluorine, chlorine, bromine, and iodine.

Legal references Europe Annex B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
76/769/EEC (Marketing and Use Directive)	P1.6, P1.8, P4.2
amendment 89/677/EEC	P1.4
amendment 1999/77/EC	P1.2
amendment 2003/3/EC	P1.7
amendment 94/27/EEC	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	P4.2
1999/45/EC (Dangerous Preparations Directive)	P4.3
2001/58/EC (Directive on Safety Data Sheets)	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