

## 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 *	Lenovo	Logo			
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	lenovo			
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	ww.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 *	Workstation				
Commercial name *	ThinkStation E31 Tower;				
Model number *	<u>Tower:</u> 2551,2552,2553,2554,2555				
Issue date *	2012.06.14				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information	ENERGY STAR® Qualified; EPEAT Gold Rating, GREENGUARD Certification,				

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Quality	Requireme	ent 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 *	Thinkstation E31 Tower		
Issue date *	2012.06.14	Logo	lenovo

<b>Product</b>	oduct 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).					
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/ThinkGreen_products.html#environment					
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).					
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	$\boxtimes$	$\Box$			
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	$\square$		
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.	d 🔀				
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 Montrea 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 %.

Model number *	Thinkstation E31 Tower		
Issue date *	2011.06.14	Logo	lenovo

Product	luct environmental attributes - Market requirements - Environmental conscious design					
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	Ш		
P7	Design Disassembly, recycling					
P7.1*	Parts that have to be treated separately are easily separable					
P7.2*	Plastic materials in covers/housing have no surface coating.	$\overline{\mathbb{X}}$	Ħ	$\overline{}$		
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	$\overline{\mathbb{X}}$	Ħ	Ħ		
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.	$\overline{\boxtimes}$	Ħ	Ħ		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		П	П		
	Product lifetime					
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		П			
P7.8*	Upgrading can be done using commonly available tools					
P7.9.	Spare parts are available after end of production for: 5 years					
P7.10	Service is available after end of production for: 5 years					
	Material and substance requirements					
P7.11*	Product cover/housing material type:					
D= 10	Material type: ABS Material type: Steel					
P7.12	Electrical cable insulation materials of power cables are PVC free.					
P7.13	Electrical cable insulation materials of signal cables are PVC free					
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.	$\boxtimes$				
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: <i>Brominated Epoxy Resin See P14</i>					
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.  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: , CAS #: , Supplier:  2. Chemical name: , CAS #: , Supplier:					
	3. Chemical name: , CAS #: , Supplier: Alt. 2 Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:					
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 <i>Tower: 51.03%</i> ,					
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.					
P7.22	Light sources are free from mercury					
P8	Batteries					
P8.1*	Battery chemical composition:					
P8.2	Batteries meet the requirements of the following voluntary program/s:			$\overline{\mathbf{X}}$		

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 *	Thinkstation E31 Tower		
Issue date *	2011.04.27	Logo	lenovo

	Product environmental attributes - Market requirements (continued)  Requirement me						
Item				Yes No	n.a.		
P9 Energy consumption  9.1 For the product the following power levels or energy consumptions are reported: See P14							
The product is ship	pped w/ WOL Enable						
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 *			
Category D							
Idle State - WOL Enabled	<b>69.27</b> W	<b>68.25</b> W	<b>70.14</b> W	Use for Energy Star V5 registration(Pidle)			
Sleep (S3) - WOL Enabled	1.67 W	1.68 W	<b>1.80</b> W	Use for Energy Star V5 registration(P <sub>sleep</sub> )			
Off (S5) - WOL Enabled	<b>0.52</b> W	0.54W	<b>0.67</b> W	Use for Energy Star V5 registration(Poff)			
Peak (On-max)	198.65W	<b>199.03</b> w	<b>197.35</b> w	Full load			
Category C							
Idle State - WOL Enabled	<b>69.45</b> W	<b>69.16</b> W	<b>69.45</b> W	Use for Energy Star V5 registration(P <sub>idle</sub> )			
Sleep (S3) - WOL Enabled	1.66 W	1.67 W	1.79W	Use for Energy Star V5 registration(P <sub>sleep</sub> )			
Off (S5) - WOL Enabled	<b>0.52</b> W	<i>0.54</i> W	<b>0.67</b> W	Use for Energy Star V5 registration(Poff)			
Peak (On-max)	188.90W	<b>187.71</b> w	<b>188.67</b> w	Full load			
Category B							
Idle State - WOL Enabled	<b>67.71</b> W	<b>67.15</b> W	<b>68.39</b> W	Use for Energy Star V5 registration(P <sub>idle</sub> )			
Sleep (S3) - WOL Enabled	1.69 W	1.70 W	1.81W	Use for Energy Star V5 registration(P <sub>sleep</sub> )			
Off (S5) - WOL Enabled	<b>0.52</b> W	0.54W	0.64 W	Use for Energy Star V5 registration(Poff)			
Peak (On-max)	187.98W	189.79W	0.64W	Full load			
Category A							
Idle State - WOL Enabled	N/A	N/A	N/A	Use for Energy Star V5 registration(P <sub>idle</sub> )			
Sleep (S3) - WOL Enabled	N/A	N/A	N/A	Use for Energy Star V5 registration(P <sub>sleep</sub> )			
Off (S5) - WOL Enabled	N/A	N/A	N/A	Use for Energy Star V5 registration(Poff)			
Peak (On-max)	N/A	N/A	N/A	Full load			
EPS No-load	W	W	W				
(External power supply /							
charger plugged in the wall outlet but disconnected from							
the product.)							
TEC Typical Energy Consumption	kWh/week	kWh/week	kWh/week				
Typical Energy Concumption							
ETEC * Annual Energy Consumption	Cat D: 245.96; Cat C:246.59;	Cat D: 242.49;	Cat D: 249.79; Cat C: 247.36;	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.6 + P_{sleep} \times 0.1 + P_{idle} \times 0.3)$			
Ailliuai Ellergy Collsumption	Cat B: 240.50;	Cat C:245.67; Cat B: 238.64;	Cat B: 243.51;	0.1 + Fidle X 0.3)			
	Cat A: N/A;	Cat A: N/A;	Cat A: N/A				
	kWh/year	kWh/year	kWh/year				
	P <sub>off</sub> : Off Mode(\$5) - V	WOL Enabled; Psleep: S	Sleep Mode(S3) - WOL	. Enabled; P <sub>idle</sub> : Idle State - WOL Enabled			
Display resolution : Me	egapixels						
Print Speed :	Images per minu	te					
Default time to enter energy sa	ave mode: 30 minute	S					
P9.2* Information about t	the energy save fund	ction is provided with	the product.				
P9.3* The product meets the energy requirements of the following voluntary program/s:							
ENERGY STAR® version: Version 5.2 Product category: A,B,C,D  Others specify:							
Carloto opposity.							



Model number * Thinkstation F31 Tower										
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	ssue date * 2011.04.27 Logo									
P10	Emissio		Declared according to ICO 0000							
P10.1	Mode	mission	n – Declared according to ISO 9296  Mode description	Declared	Г	Declared A	-weighted			1
1 10.1	A-everighted sound pressure level			•						
				sound power	Souria	pressure it	•			
				level $L_{WAd}$ (B)	Operator pos	sition 🔀	Bystand	der pos	itions	
						ktop 🔀	(only if p	roduct	ie not	
					or Desk	side	operat			
	Idle		* HDD: Idle	* 3.3		2	5			
	Operation	n	* HDD: Operating	* 3.6		2	27			
	Other m	ode								
			I ding to: ISO7779 ECMA-74							_
	ivieasure	accon		rod by ECMA 74 wi	ith L. moosi	ıromont di	ctanco	m	۸	
P10.2	The proc	duct mad	ets the acoustic noise requirements of the	red by ECMA-74 wi		arement di	Starice	m	<u>'</u>	
			attributes - Market requirements (c		program/s.		Do	quire	mont	
Item	CITALI OLLI	ii <del>c</del> iitai	attributes - Market requirements (c	ontinueu)			INC	Yes	No	n.a.
1.0111	Chemic	al emiss	sions from printing products					100	110	11.0.
P10.3*			according to ECMA-328 (ISO/IEC 28360)	standard . other	specify:					
P10.4			n rate (print phase) is (mg/h):	, oure	op coy.					
		Dust		nzene TV	ос					
P10.5	Chemica	al em <u>iss</u> i	ion requirements of the following voluntary	program/s	are met for :					$\boxtimes$
		Dust	Ozone Styrene	Benzene		TVOC				
<b>D</b>			c emissions		11 61 61	<u> </u>				
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:							Ш		
P11			aterials for printing products							
P11.1*	A Safety	Data SI	heet (SDS) is available for the ink/toner pro-	eparation, even if n	ot legally requ	ired (see F	P4.3).			$\boxtimes$
P11.2*	Paper c EN1228		g post-consumer recycled fibers can be	used, provided that	at it meets the	e requiren	nents of			
P11.3*	2-sided	(duplex)	printing/copying is an integrated product f	unction.						$\boxtimes$
P12	12 Ergonomics for computing products									
P12.1*										
P12.2*	The phys	sical inp	out device meets the requirements of ISO 9	995 and ISO 9241	-410.			$\boxtimes$		
P13			documentation							
P13.1*				: 1.176, (85%+	recycled)					
			ng material type(s): <b>Solid EPE</b> weight (kg)		alad)					
P13.2*	Product packaging material type(s): <i>HDPE</i> weight (kg): <i>0.016 (30%+ recycled)</i> Product plastic packaging is free from PVC.						$\overline{\Box}$			
P13.3*	Product plastic packaging is free from PVC.  Specify media for user and product documentation (tick box):					$\dashv$				
			Paper , Other							ш
P13.4*										
	fiber: 0% (Japan only 70%)									
P14			rmation (See Note B4)		antina velsatka		ادوالعماس	**************************************	log 4b	
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	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									
D7 17	information.  Product does not contain free TRRPA in printed circuit beards/without components\> 350									
P7.17	Product does not contain free TBBPA in printed circuit boards(without components)>25g.  See Energy Star Qualified (insert appropriate Product type; i.e. Desktop, Notebook, etc.) for the latest information:									
•	http://downloads.energystar.gov/bi/qplist/laptops_prod_list.xls (insert appropriate web url)									

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