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## 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.

<b>Brand *</b>	<i>Hewlett-Packard</i>	
<b>Company name *</b>	<i>Hewlett-Packard Company</i>	
<b>Contact information *</b>	<i>Hans Wendschlag</i> <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/contactemail.html">http://www.hp.com/hpinfo/globalcitizenship/environment/contactemail.html</a>	
<b>Internet site *</b>	<a href="http://www.hp.com/hpinfo/globalcitizenship/environment/">http://www.hp.com/hpinfo/globalcitizenship/environment/</a>	
<b>Additional information</b>		

<b>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.</b>	
<b>Type of product *</b>	<i>Thin Client</i>
<b>Commercial name *</b>	<i>HP t820 Flexible Thin Client</i>
<b>Model number *</b>	<i>t820</i>
<b>Issue date *</b>	<i>11/4/2013</i>
<b>Intended market *</b>	<input checked="" type="checkbox"/> Global <input type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
<b>Additional information</b>	


This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality Control		Requirement met	
		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 <a href="http://www.itecodeclaration.org">www.itecodeclaration.org</a> ).	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Model number *</b>	t820		
<b>Issue date *</b>	11/4/2013	<b>Logo</b>	

Product environmental attributes - Legal requirements		Requirement met		
		Yes	No	n.a.
<b>P1</b>	<b>Hazardous substances and preparations</b>			
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)	<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 more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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).	<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 more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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/cm <sup>2</sup> /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"/>
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html">http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P2</b>	<b>Batteries</b>			
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"/>
<b>P3</b>	<b>Safety, EMC connection to the telephone network and labeling</b>			
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"/>
<b>P4</b>	<b>Consumable materials</b>			
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).	<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) in accordance with these requirements is available (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>P5</b>	<b>Product packaging</b>			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium 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 B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

Model number *	t820		
Issue date *	11/4/2013	Logo	

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.
<b>P6</b>	<b>Treatment information</b>			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P7</b>	<b>Design</b>			
	<b>Disassembly, recycling</b>			
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
	<b>Product lifetime</b>			
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: <b>5</b> years			<input type="checkbox"/>
P7.10	Service is available after end of production for:            years			<input checked="" type="checkbox"/>
	<b>Material and substance requirements</b>			
P7.11*	Product cover/housing material type: Material type: <b>&gt;ABS&lt;</b> Material type: <b>&gt;PC&lt;</b> Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.13	Electrical cable insulation materials of signal cables are PVC free	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note B2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/> , Other; chemical name:                                    , CAS #:  Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: <b>FR(16), FR(40)</b>	<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%: <b>Comment: No legal limits exist, this is a market requirement.</b> 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"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.20	Of total plastic parts' weight >25g, recycled material content is <b>12.3</b> %.			
P7.21	Of total plastic parts' weight >25g, biobased material content is <b>0</b> %.			
P7.22	Light sources are free from mercury If mercury is used specify: Number of lamps:                                    and max. mercury content per lamp:                                    mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P8</b>	<b>Batteries</b>			
P8.1*	Battery chemical composition: <b>lithium/manganese dioxide</b>			<input type="checkbox"/>
P8.2	Batteries meet the requirements of the following voluntary program/s:			<input checked="" type="checkbox"/>

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 *	t820		
Issue date *	11/4/2013	Logo	

**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 are reported:

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"/>
ENERGY STAR® On Mode * (System Idle)	17.24 W	17.25 W	18.01 W	ENERGY STAR® Program Requirements for Computers: Ver. 6.0	<input type="checkbox"/>
ENERGY STAR® Low Power Sleep Mode* (S3 - Windows "Standby") With Wake On LAN (WOL) Enabled	3.93 W	3.85 W	4.12 W	ENERGY STAR® Program Requirements for Computers: Ver. 6.0	<input type="checkbox"/>
System Off/Apparent Off Mode (ACPI S5) With Wake On LAN(WOL) Enabled* (Test Unit connected to AC Mains, AC adapter connected to All-In-One PC, if applicable)	3.31 W	3.27 W	3.49 W	ENERGY STAR® Program Requirements for Computers: Ver. 6.0	<input type="checkbox"/>
ETEC * Annual Energy Consumption (calculated value) for each input voltage	88.98 kWh/year	88.89 kWh/year	93.18 kWh/year	ENERGY STAR® Program Requirements for Computers: Ver. 6.0	<input type="checkbox"/>
Display resolution* : Megapixels (Applies only to Integrated PCs (All-In-One PC))				ENERGY STAR® Program Requirements for Displays (Ver. 6.0)	<input type="checkbox"/>
Print Speed * : Images per minute					<input checked="" type="checkbox"/>
Default time to enter energy save mode: minutes				ENERGY STAR® Program Requirements for Computers: Ver. 6.0	<input type="checkbox"/>

P9.2\* Information about the energy save function is provided with the product.


P9.3\* The product meets the energy requirements of the following voluntary program/s:  
 ENERGY STAR® version: 6.0 Tier: Product category: Thin Client     
 Others specify:

**P10 Emissions**

**Noise emission – Declared according to ISO 9296**

P10.1	Mode	Mode description	Declared A-weighted sound power level $L_{WAd}$ (B)	Declared A-weighted sound pressure level $L_{pAm}$ (dB)		
				Operator position <input checked="" type="checkbox"/> Desktop or Desk side <input type="checkbox"/>	Bystander positions <input type="checkbox"/> (only if product is not operator attended)	
	Idle	* Fans on, HDD spinning (if applicable)	* 3.5	27		<input type="checkbox"/>
	Operation	* Fans on, HDD spinning	* 3.6	28		<input type="checkbox"/>
	Other mode					
Measured according to: <input checked="" type="checkbox"/> ISO7779 <input checked="" 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:

Model number *	t820		
Issue date *	11/4/2013	Logo	

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
<b>Chemical emissions from printing products</b>				
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			<input checked="" type="checkbox"/>
P10.5	Chemical emission requirements of the following voluntary program/s are met for : Dust <input type="checkbox"/> Ozone <input type="checkbox"/> Styrene <input type="checkbox"/> Benzene <input type="checkbox"/> TVOC <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Electromagnetic emissions</b>				
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P11 Consumable materials for printing products</b>				
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"/>
<b>P12 Ergonomics for computing products</b>				
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
<b>P13 Packaging and documentation</b>				
P13.1*	Product packaging material type(s): <i>PAPER/Corrugated</i> weight (kg): <b>1.5262</b> Product packaging material type(s): <i>PLASTIC/Polyethylene low density</i> weight (kg): <b>0.177</b> Product packaging material type(s):            weight (kg):			
P13.2*	Product plastic packaging is free from PVC.	<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 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: <b>10%</b>			<input type="checkbox"/>
Rev. P13.5	User and product documentation do not contain chlorine bleached paper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P14 Additional information (See Note B4)</b>				
All sections	1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over time.			
P9	<p>1. Many PCs are offered in multiple configurations within the model family. Energy efficiency data listed in this declaration is for an ENERGY STAR<sup>®</sup> compliant configuration if offered within the model family. HP computers marked with the ENERGY STAR<sup>®</sup> Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR<sup>®</sup> specifications for computers. For more information about HP's ENERGY STAR<sup>®</sup> qualified products, go to hp.com: <a href="http://www.hp.com/">http://www.hp.com/</a> and select the applicable market segments and product categories to find PC configurations that meet the ENERGY STAR<sup>®</sup> specifications.</p> <p>2. If a model family does not offer ENERGY STAR<sup>®</sup> compliant configurations, then energy efficiency data listed is for a typically configured model.</p> <p>3. Energy Efficiency information published on the ECMA 370 The Eco Declaration represents a typically configured product base model meeting ENERGY STAR<sup>®</sup> specifications if offered within the model family. If optional components or modules are added, like extra hard disks or graphic cards etc, these can change the energy efficiency data listed above.</p> <p>4. Power consumption in the Off / Apparent Off mode is measured and reported with the network interface controller (NIC) WOL disabled</p>			

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.

5. European Union Commission Regulation 1275/2008- Energy Efficiency Information:

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Condition (if applicable)
Off Mode (if applicable)	<b>0.35 W</b>	Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)	<b>3.28 W</b>	<b>20 Min</b>
Network Standby / Sleep / Long Idle Mode (if applicable)	<b>19.95 W</b>	<b>20 Min</b>

6. European Union Commission Regulation 1275/2008- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at [www.hp.com/support](http://www.hp.com/support).

P10

1. Acoustic noise information published on the ECMA 370 The Eco Declaration represents a typically configured product base model only. If optional items with moving parts are added, like extra hard disks or graphic cards with fans etc, these can change acoustic noise values for which HP can take no responsibility.

## 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