

ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

### Annex B2 - Product environmental attributes Notebooks and Tablets

The declaration may be published only when all rows and/or fields marked with \* are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo			
Company name *	Lenovo				
Contact information * Lenovo Global Environmental Affairs		Lenovo			
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Additional information	The latest version of this document can be found at:				
	http://www.lenovo.com/ecodeclaration				

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 *	Type of product * Notebook					
Commercial name *	Lenovo Chromebook C340-15					
Model number *	8179					
Issue date *	2019/5/13					
Intended market *	🔀 Global 📃 Europe 📃 Asia, Pacific & Japan 📃 Americas 📃 Other					
Additional information						

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

#### About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template: P4.1 – P4.3 Consumable materials P9.1 TEC and Print speed P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products.

Model n	umber *	81T9 Logo	› <b>–</b>			
lssue da	ite *	2019/5/13	Le	eno	VO,	
Produc	t environ	mental attributes - Legal requirements	Rec	quirem	ent r	net
Item				Yes N	lo i	n.a.
P1		us substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE B1)		$\boxtimes$ [		
P1.2*	Commer	: do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloroe	e do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), mofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximu ation values.				
P1.4*	terpheny	do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorina I (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).					
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm <sup>2</sup> /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.					
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail contact ww.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	ot):			
P2	Batterie	S				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with the dis Information on proper disposal is provided in user manual. (See legal reference)	posal			
P2.2*	referenc		(See legal			
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		$\boxtimes$		
P3	Conform	nity verification & Eco design (ErP)				
P3.1*	The Dec	luct is CE-marked to show conformance with applicable legal requirements (see legal ref laration of Conformity can be requested at (add link or e-mail address): <a href="https://www.lenovo.com/us/en/compliance/eu-doc">www.lenovo.com/us/en/compliance/eu-doc</a>	erence).			
P3.2*	The proc	luct complies with the Eco design requirements for energy-related products, al reference).				
	Required	I information is; given in item P15 or added to this document, available at (add URL): <i>lenovo.com/us/en/compliance/eco-ded</i>	laration			
P5	Product	packaging				
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercury, cac ent chromium by weight of these together.	Imium and			
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the	material(s)			
P5.3*	used (see legal reference). The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference).					
DC		t: Legal reference has no maximum concentration values.				_
P6.1*		nt information			_	-
F0.1	mormati	on for recyclers/treatment facilities is available (see legal reference).				

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *		81T9	Logo						
Issue dat	te *	2019/5/13		Len		<b>D</b>			
Product		mental attributes - Market requirements (See General NOTE GN onmental conscious design	below)	Require	ment	met			
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.			
P7		Disassembly, recycling		100	110	ma.			
P7.1*		at have to be treated separately are easily separable							
P7.2*		naterials in covers/housing have no surface coating.				H			
P7.3*		arts > 100 g consist of one material or of easily separable materials.				-#-			
-					<u> </u>	<u> </u>			
P7.4*	•	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4. Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.							
P7.5	•	$\square$							
P7.6*	Labels a		$\boxtimes$						
	Product	lifetime							
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives								
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								
17.10		and substance requirements							
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):							
1 7.11			al type:						
P7.12		n materials of external electrical cables are PVC free.	ar type:		$\boxtimes$				
P7.13		n materials of internal electrical cables are PVC free.				╞			
P7.14			roming and 0 10			╞			
17.14	weight (' polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flam chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i in 25% post-consumer recycled content.	e retardants, an	d 🛄					
P7.15	Printed c	arcuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ⊠ ad in IEC 61249-2-21. (See 1NOTE B2)	are low haloge	n 🔀					
P7.16	Flame re	<pre>tarded plastic parts &gt; 25 g in covers / housings are marked according ISO 1043-4:</pre>		$\square$					
P7.17	Alt. 1: Ch TBBF (English	nemical specifications of flame retardants in printed circuit boards > 25 g (without c PA (additive), TBBPA (reactive) (See NOTE B3), Other: <i>Phosphoric flame re</i> prame:6h-Dibenz(C,E)(1,2)Oxaphosphorin-6-Oxide) Juded TBBP-A \ PBBs \ PBDEs and Halogen), CAS #: 35948-25-5							
		nemical specifications of flame retardants in printed circuit boards (without compon g ISO 1043-4:	ents) > 25 g						
P7.18	concentr 1. Chem 2. Chem	ame retarded plastic parts > 25 g contain the following flame retardant substance ations above 0,1%: ical name: <b>Confidential</b> , CAS #: <b>Confidential</b> (See NOTE B4) ical name: , CAS #: " ical name: , CAS #: "	es/preparations i	n 🔀					
		nemical specifications of flame retardants in plastic parts > 25 g according ISO 104		$\square$					
P7.19	assigned	ic parts > 25 g, flame retardant substances/preparations above 0,1% are used while the following Risk phrases; and Hazard statements: <i>No H statement</i> rec(s) for these classifications is/are found at (add URL(s)): (Statement)	ch have been See note B5)						
P7.20*		sumer recycled plastic material content is used in the product (See Note B6):		$\square$					
	lfYES;a a) Oft ape or	It least one of the two alternatives below shall be answered; total plastic parts' weight > 25 g, the postconsumer recycled plastic material conter ercentage of total plastic by weight) is <i>0.43</i> %. The weight of recycled material is <i>1.8</i> g.	nt (calculated as						

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	8179	Logo	
Issue date *	2019/5/13		Lenovo.

Product environmental attributes - Market requirements (continued)

Item

Requirement met

Yes	No	n.a.

	Material and sub	stance requirements	(continued)		
P7.21*			d in the product (See N	OTE B7):	
	If VES: at least on	o of the two alternative	es below shall be answ	orod:	
	'			,	ated as a percentage of
	total plastic b				
	or	,			
<b>DT</b> 0.01	/ 3	f the biobased plastic	<b>v</b>		
P7.22*		free from mercury, i.e. specify: Number of lar	less than 0,1 mg/lamp	ium mercury content pe	
P8	Batteries	specify. Number of la	nps. anu maxim	ium mercury content pe	er lamp: mg
P8.1*		composition: Li-ion F	Polymer		
P9		tion (See NOTE B8)	orymen		
P9.1			ls or energy consumpti	ons are reported:	
Energy mo		Power level at	Power level at	Power level at	Reference/Standard for energy
-		100 V AC	115 V AC	230 V AC	modes and test method *
Peak (On-	max)	<b>45</b> W	<b>45</b> W	<b>45</b> W	Full load
Categor	<u>y NB1</u>				
Short Idle	State - WOL	5.78 W	5.70 W	5.75 W	Use for ENERGY STAR V7.0
Enabled					registration (P <sub>idle</sub> )
Long Idla	State - WOL	1.39 W	<b>1.45</b> W	1.37 W	Use for ENERGY STAR V7.0
Enabled		1.33 VV	1.45 VV	1.57 VV	registration (P <sub>idle</sub> )
Sleep (S3)	- WOL Enabled	0.56 W	0.56 W	0.56 W	Use for ENERGY STAR V7.0
					registration (P <sub>sleep</sub> )
Sleep (S3)	- WOL Disabled	0.56 W	0.56 W	0.56 W	Reference
Off (S5) - 1	NOL Enabled	0.36 W	0.36 W	0.36 W	Use for ENERGY STAR V7.0
					registration (Poff)
Off (\$5) - 1	NOL Disabled	0.36 W	0.36 W	0.36 W	Use for ErP
EPS No-loa		0.033 W	0.034 W	0.080 W	
(External power s wall outlet but dis	supply / charger plugged in the connected from the product.)				
PTEC *		W	W	W	
	ergy Consumption				
ETEC *	ergy Consumption	18.91 kWh/year	18.76 kWh/year	18.82 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$ + $P_{sleep} \times 0.35 + P_{long_ldle} \times 0.10+$
	cigy consumption				$P_{\text{short Idle } X \ 0.30}$
					ed; Pidle: Idle State - WOL Enabled
External Po	ower Supply Efficier		I Efficiency Marking Pro		
Display res	olution * : 3840*21	60 megapixels			
Default tim	e to enter energy sa	ave mode: 8 minutes			
P9.2*	•••		on is provided with the	product.	
P9.3		class (monitors only):		•	
P10	Emissions				
		Declared according to	o ISO 9296 (See NOTE	E B9)	
P10.1		Node description	(		it A-weighted sound power level, <i>L<sub>WA,c</sub></i> (B)
	Idle *	Idle		* 2.7	
	Operation *	CPU Operating		* 4.0	
	Other mode	Declared A-weighted sour	d pressure level (dB) $L_{pAr}$	18.4 (operator po	osition desktop – idle)
	Other mode	Declared A-weighted soun	d pressure level (dB) $L_{pAr}$	30.8 (operator po	osition desktop – operating)
	Measured accordi	ng to: 🔀 ISO 7779 🗋			
		Other	(only if not covered by	ECMA-74)	

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nu	mber *	81T9						Logo			
lssue dat	e *	2019/5/13							Len	Lenovo	
Product	environr	nental attribut	es - Marke	t requirer	nents (cor	ntinued)			Requi	rement	t me
Item									Yes	s No	n.a
		nagnetic emissi									
P10.4	Compute program		the requirem	ent for low	frequency e	lectromagnetic fie	elds of the fol	lowing volunta	ry		$\ge$
P12		mics for compu									
P12.1*	The disp	lay meets the er	gonomic req	uirements o	of ISO 9241-	307 for visual dis	play technolo	gies.			$\ge$
P12.2*	The phy	sical input device	e meets the r	equirement	s of ISO 999	95 and ISO 9241-	410.			$\square$	
P13	Packagi	Packaging and documentation									
P13.1*	Product	Product packaging material type(s):       PAPER       weight (kg):       0.360         Product packaging material type(s):       EPE       weight (kg):       0.100         Product packaging material type(s):       LDPE       weight (kg):       0.018									
P13.2*	Product	plastic primary p	ackaging is f	iree from P\	/C.				$\square$		
P13.3*		duct primary con er recovered fibe			kaging, spec	cify the contained	d percentage	of minimum	post-		
P13.4*	Specify media for user and product documentation (tick box):										
P13.5	Úser and	only complete th d product docum lease specify:								$\boxtimes$	
	Totallv c	hlorine-free									
	•	al chlorine-free							П		
	Process	ed chlorine-free							H		
P14	Volunta	ry programs									
P14.1		duct meets the re	equirements	of the follow	/ing voluntar	y program(s):					
	ENERG	Y STAR®	Criteria	version: 7.	0	Date: 2019-07-0	Product	category: NB1	1		
	Eco-labe	el:	Criteria	version:		Date:	Product	category:			
	Eco-labe			version:		Date:	Product	category:			
P15		nal information									
P9						description of t					
	informati knowled	ion contained in t ge available at th I here is approxir	this documer	nt. All inform mpletion, ar	nation provid	irances or warran led by supplier in shall have no obliq purposes only. Se	this docume gation to upda	nt is provided ate such inforr	based on su nation. The	pplier's informa	
P9	See Ene http://ww	ergy Star Qualifie /w.energystar.go	d Notebooks v/index.cfm?	& Tablet C fuseaction=	omputers fo find_a_proc	r the latest inform duct.showProduct	nation: :Group&pgw_	_code=CO			

NOTE B10 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 B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

# Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

### Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo Chromebook C340-15	Logo
Model Number	81T9	
Issue Date	2019/5/13	Lenovo
Additional information		

P7.1.1	Product environmental attributes							
(d)	Year of manufacture:							
(e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are			
(f)	Etec value (kWh) per ErP Lot 3 Categor enable	y and capability adjus	tments applied when <b>a</b>	II discrete graphics o	cards (dGfx) are			
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)			
	Memory over base [GB]	4G						
lents sting	Additional internal storage	Yes (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
ability a	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
cap app	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	# <i>:</i> (Yes / No)	#: (Yes / No)			
	Category of discrete graphics Card(s)							
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	5.65						
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled							
(g)	Idle state power demand (Watts);				1.19			
(h)	Sleep mode power demand (Watts);				0.54			
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.54			
(j)	Off mode power demand (Watts);				0.39			
(k)	Off mode with WOL enabled power dema	and (Watts) (where er	nabled);		0.39			
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100	% of rated output powe	er (if applicable):				
	10% 20% 50%	100% Avera	age					
(m)	External power supply efficiency (if appli	cable)*:						
	Average active efficiency: 85.71% , 82.0	61%,87.80%						
(0)	*internal note: show values for all available external po Minimum number of loading cycles that t	11	tand (applies only to n	otebook computers):	300			
(p-1)								

(p-2)		Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: ENERGY STAR® Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies Eligibility Criteria (Version 2.0)						
(p-3)	Measurement metho	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: ≥70% of Cmin						
(p-4)		Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: IEC 62623						
(q)	Sequence of steps for	Sequence of steps for achieving a stable condition with respect to power demand: Power on -> Wait 5 minutes ->Stable condition						
(r)	Description of how s	Description of how sleep and/or off mode was selected or programmed: Begin menu -> Power -> Select sleep or off mode						
(s)	Sequence of events off mode:	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: NA						
(t) (u)	condition which does	te condition before the computer automatically response to the applicable power demand requirem r a period of user inactivity in which the compute	ents for sleep mode (in minutes):	30min				
	mode that has a lov	wer power demand requirement than sleep mode (in	n minutes):	NA				
(v) (w)		pre the display sleep mode is set to activate after nergy-saving potential of power management functio		10min				
(w)		Refer to User Guide	nanty.					
(x)	User information on	how to enable the power management functionality: <i>Refer to User Guide</i>						
(z)		measurements: — test voltage in V and frequency in system, — information and documentation on the in sting: 230V50HZ-2%-Edition 2.0, 2011-01, Section 4	strumentation, set-up and circuits					
Additio	nal Notebook Batter							
		Battery[ies] <u>not</u> user replaceable The battery[ies] in this product cannot be easily replaced by users themselves. <sup>1)</sup>	Battery[ies] user replaceable	n/a				
Internal/	/built-in Battery							
External	l/detachable Battery							
Bios Ba	ckup Battery							
Other:								
Addition	al information							
		asily replaced by users themselves.						
is baterías c	de este producto no pueden s	родукт не може да се замени[ят] лесно от самите потребител er sustituidas fácilmente por los propios usuarios.	пи.					
		neměli provádět sami uživatelé. teriet/batterierne i dette produkt.						
	Akkus dieses Produkts kann/ saa selle toote akut/akusid ise	können nicht ohne weiteres vom Benutzer selbst ausgetauscht v e hõlpsasti asendada.	verden.					
μπαταρία[-ε	ες] στο προϊόν αυτό δεν μπορ	ούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες iit ne peuvent être facilement remplacée(s) par les utilisateurs et	IV-mâmes					
orisnik ne m	ože lako zamijeniti Bateriju sa	am u ovom proizvodu.	armentes.					
etotāji paši r	nevar nomainīt šā ražojuma a							
termék akku		elhasználó nem tudja egyedül egyszerűen kicserélni.						
oatterija/bat		/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess.						
e batterij(en	) in dit product is (zijn) door d	e gebruiker niet gemakkelijk vervangbaar. wymienić baterii w tym produkcie.						
ou as bateri	ias deste produto não podem	ser facilmente substituídas pelos próprios utilizadores.						
	iile) din acest produs nu poat tomto výrobku nemôže vymie	e (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși. ăat nouživatel						

Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ. Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.