THE ECO DECLARATION

ecma INTERNATIONAL

Ecma/TC38-TG3/2015/025
(Rev. 1 – 15 April 2015)

Annex B1 - Product environmental attributes
Imaging equipment

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 *	***Ricoh***	**Logo**
Company name *	***Ricoh Company, Ltd.***	RICOH imagine. change.
Contact information * e-mail address	***Ricoh Europe SCM B.V., Blankenweg 24, 4612 RC Bergen of Zoom, The Netherlands*** *emo@ricoh-europe.com*	
Internet site *	***www.ricoh.com***	
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 *	***A4 Mono Printer***
Commercial name *	***P 501***
Model number *	***P 501***
Issue date *	***24.9.2019***
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 B1

Annex B1 reflects Product environmental attributes relevant for Imaging products. The following items from the ECMA-370 Main body are not shown in the template:

P9.1 PTEC, ETEC and display resolution
P12.1-P12.2 Ergonomic requirements.

Model number *	***P 501***	**Logo**	RICOH imagine. change.
Issue date *	***24.9.2019***		

Product environmental attributes - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with the current European RoHS Directive. (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).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/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):	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☒	☐	☐
P2.2*	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 readily removable. (See legal reference)	☒	☐	☐
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address):	☒	☐	☐
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference).	☒	☐	☐
	Required information is; ☐ given in item P15 or added to this document, ☐ available at (add URL):	☐	☒	☐
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).	☒	☐	☐
P4.3*	If the ink/toner formulation/preparation is classified as hazardous or contains a substance for which there are Community workplace exposure limits, the product/packaging is adequately labeled according to applicable regulations 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.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
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.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information 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 *	***P 501***	**Logo**	RICOH imagine. change.
Issue date *	***24.9.2019***		

Product environmental attributes - Market requirements (See General NOTE GN below) **- Environmental conscious design**		**Requirement met**		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
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.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	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: ***7*** years			☐
P7.10	Service is available after end of production for: ***7*** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***PC+ABS*** Material type: Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☐	☒	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☐ are low halogen as defined in IEC 61249-2-21. (See NOTE B2)	☐	☒	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: ***FR(40)***	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #: ***BFRs are used, which are not restricted of their inclusion by regulations*** Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:	☐ ☐	☒ ☒	☐ ☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: " Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: ***FR(40)***	☐ ☒	☒ ☐	☐ ☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): , (See NOTE B5)	☐	☒	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***7.9*****%**. or b) The weight of recycled material is g.	☒	☐	☐

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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

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 *	***P 501***	**Logo**	RICOH imagine. change.
Issue date *	***24.9.2019***		

Product environmental attributes - Market requirements (continued)						**Requirement met**		
Item						Yes	No	n.a.
	Material and substance requirements (continued)							
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is <***0.002***%. or b) The weight of the biobased plastic material is g.					☒	☐	☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg					☒	☐	☐
P8	**Batteries**							
P8.1*	Battery chemical composition: ***Manganese dioxide lithium battery***							☐
P9	**Energy consumption (See NOTE B8)**							
P9.1	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 *			☐
Sleep mode for ENERGY STAR® Operational Mode (OM) products		W	W	W				☒
Standby/off mode for ENERGY STAR Operational Mode (OM) products		W	W	W				☒
TEC value for ENERGY STAR TEC products (TEC= Typical Energy		kWh/week	kWh/week	***0.49*** kWh/week				☐
Operating Mode		W	W	***596.9***W				☐
Ready Mode		W	W	***78.6*** W				☐
Sleep Mode		W	W	***0.5*** W0				☐
		W	W	W				☐
		W	W	W				☐
		W	W	W				☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :								☒
Print/Scan Speed * : ***43*** images per minute								☐
Default time to enter energy save mode: ***1*** minutes								☐
P9.2*	Information about the energy save function is provided with the product.					☒	☐	☐
P10	**Emissions**							
	Noise emission – Declared according to ISO 9296 (See NOTE B9)							
P10.1	Mode	Mode description		Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)				
	Idle	* ***Stand-by***		* ***3.2***				☐
	Operation	* ***Operating mode***		* ***6.9***				☐
	Other mode	***See section P 15***						
	Measured according to: ☒ ISO 7779 ☐ ECMA-74 ☐ 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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

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

Model number *	P 501	Logo	RICOH imagine. change.
Issue date *	24.9.2019		

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Chemical emissions from printing products (See NOTE B10)			
P10.2*	Test performed according to ECMA-328 Determination of Chemical Emission Rates from Electronic Equipment (ISO/IEC 28360) ☐, other specify: ***RAL-UZ205***	☒	☐	☐
P10.3	Typical emission rate (operation phase) is (mg/h):			☐
	Electrophotographic devices: Ozone ***<0.2*** Dust ***<0.18*** Styrene ***0.056*** Benzene ***<0.007*** TVOC ***2***			☐
	Ink devices: Dust Styrene Benzene TVOC			☐
	Note: compliance with maximum emission rates in eco labels to be declared in P14.			
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).	☒	☐	☐
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN 12281.	☒	☐	☐
P11.3*	2-sided (duplex) printing/copying is an integrated product function.	☒	☐	☐
P11.4*	The product is delivered to end-user with default auto-duplex enabled.	☒	☐	☐
P13	**Packaging and documentation**			
P13.1*	Product packaging material type(s): ***Corrugated Paper*** weight (kg): ***2.62*** Product packaging material type(s): ***Plastic*** weight (kg): ***0.464*** Product packaging material type(s): weight (kg):			
P13.2*	Product plastic primary packaging is free from PVC.	☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: %			☒
P13.4*	Specify media for user and product documentation (tick box): Electronic ☒, Paper ☒, Other ☐			☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:	☒	☐	
	Totally chlorine-free	☒		
	Elemental chlorine-free	☐		
	Processed chlorine-free	☐		
P14	**Voluntary programs:**			
P14.1	The product meets the requirements of the following voluntary program(s):			
	ENERGY STAR® Criteria version: Date: Product category: Eco-label: ***BAM*** Criteria version: ***RAL UZ205*** Date: Product category: ***Printer*** Eco-label: Criteria version: Date: Product category:			
P15	**Additional information (See NOTE B11)**			
	This product is designed to utilize recycled plastic materials wherever available			
	Declared A-weighted sound pressure level L_{pAm} (dB) in operation position ***Stand-by: 23.2 (dB)*** ***Operating Mode; 56.7(dB)***			
	Comment A (PVC) : The PVC is restricted to use only for the packing materials. The following is Ricoh Group Green Procurement's standpoint for the PVC use for the products: Please refer to the latest Ricoh Group Green Procurement Guideline below; http://ext.ricoh.co.jp/ecology/guideline/pdf/image_e_ver7.pdf Ricoh deleted the restriction of use of PVC as steted in the above as "Until now, PVC contained in products is restricted to use since we concerned environmental impact after product disposal and hazardous property of additives. At this time we have reviewed a scope of PVC restricted use by confirming public movement and concern surrounding PVC. Comment B (Flame retardants in the PCB): There is a same kind of requirement in the EPEAT criteria 4.1.6.2 : All printed circuit board laminates included in the product excluding components soldered or affixed to the printed circuit board laminates shall contain no more than 0.1 % weight. (1000ppm) bromine and 0.1 % weight. (1000ppm) chlorine attributable to brominated flame retardants (BFRs) and chlorinated flame retardants (CFRs), with the following exception:			

NOTE B10 A Guidance document on Chemical Emissions is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B11 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.

. Uses of brominated or chlorinated substances that are not classified as BFRs or CFRs are allowed, but their use shall be documented if the bromine or chlorine content exceeds the applicable threshold.

....

IEC 61249-2-21 establishes limits on elemental bromine (900 ppm) and chlorine (900 ppm), and a combined limit of (1500 ppm.) Demonstration of conformance with the threshold limits established in IEC 61249-2-21 meets the requirements of this criterion.

However, any registered MFP/Printer/Scanner products, 620 products registered as of today including Ricoh/Canon/KonicaMinolta/HP/Xerox/Samsung/Lexmark/Toshiba/Dell/Epson/Kodak/Kyocera, do not comply yet to this requirement. It is said that it seems difficult for the PCB manufacturers to meet this requirement from the technical reasons.

Comment C (Risk Phrase classified flame retardant):

We confirmed the plastic manufacturers and obtained their declarations that the plastic materials used in the products are compliant with the Blue Angel criteria

*Only flame retardants classified as R53 might be contained as above 0.1%.

Legal references Europe Annex B1

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1, P4.1
(EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7, P4.2
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000, (Marketing and use of Ozone layer depleting substances)	P1.3, 5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
"REACH" Regulation (1907/2006), annex VII	P1.10
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) 1907/2006 (REACH Regulation), Article 31, annex II)	P4.3
Regulation (EC) 1272/2008 (CLP Regulation)	P4.3, 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