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 Plc, 20 Triton Street, London NW1 3BF***<br>*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 *** | ***Printer*** |
| **Commercial name *** | ***SP 450DN*** |
| **Model number *** | ***SP 450DN*** |
| **Issue date *** | ***26.1.2017*** |
| **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** * | ***SP 450DN*** | **Logo** | RICOH imagine. change. |
| **Issue date** * | ***26.1.2017*** | | |

| **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).<br>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).<br>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).<br>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** * | ***SP 450DN*** | **Logo** | RICOH imagine. change. |
| **Issue date** * | ***26.1.2017*** | | |

| **Product environmental attributes - Market requirements** (See General NOTE GN below)<br>**- 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):<br>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:<br>Marking: | ☒ | ☐ | ☐ |
| P7.17 | Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):<br>TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #:<br>***BFRs is used, which are not restricted of their inclusion by regulations***<br>Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: | ☐<br>☐ | ☒<br>☒ | ☐<br>☐ |
| P7.18 | Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%:<br>1. Chemical name: , CAS #: (See NOTE B4)<br>2. Chemical name: , CAS #: "<br>3. Chemical name: , CAS #: "<br>Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: | ☐<br>☒ | ☒<br>☐ | ☐<br>☐ |
| 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:<br>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):<br>If YES; at least one of the two alternatives below shall be answered;<br>a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***0.3*****%**. or<br>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 * | *SP 450DN* | Logo | RICOH imagine. change. |
|---|---|---|---|
| Issue date * | *26.1.2017* | | |

| 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):<br>If YES; at least one of the two alternatives below shall be answered;<br>a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is ***0***%.<br>or<br>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.<br>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*** | | | ☐ |
| **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<br>(TEC= Typical Energy | kWh/week | kWh/week | ***1.710*** kWh/week | | ☐ |
| ***Operating Mode*** | W | W | ***561.7*** W | | ☐ |
| ***Ready Mode*** | W | W | ***90.5*** W | | ☐ |
| ***Sleep Mode*** | W | W | ***0.56*** W0 | | ☐ |
| | W | W | W | | ☐ |
| | W | W | W | | ☐ |
| | W | W | W | | ☐ |
| External Power Supply Efficiency Level (International Efficiency Marking Protocol) * : | | | | | ☒ |
| Print/Scan Speed * : ***40*** 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*** | * ***3.4*** | ☐ |
| | Operation | * ***Operating mode*** | * ***7.1*** | ☐ |
| | 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 * | SP 450DN | Logo | RICOH imagine. change. |
|---|---|---|---|
| Issue date * | 26.1.2017 | | |

| 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-UZ171*** | ☒ | ☐ | ☐ |
| P10.3 | Typical emission rate (operation phase) is (mg/h): | | | ☐ |
| | Electrophotographic devices: Ozone ***<limit of detection*** Dust ***0.83*** Styrene ***0.051*** Benzene ***<limit of detection*** TVOC ***4.5*** | | | ☐ |
| | 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): ***2.313***<br>Product packaging material type(s): ***Plastic*** weight (kg): ***0.75***<br>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):<br>Electronic ☒, Paper ☒, Other ☐ | | | ☐ |
| P13.5 | (Please only complete this item if paper documentation used)<br>User and product documentation on paper media is chlorine-free:<br>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: ***2.0*** Date: Product category: ***Printer*** | | | |
| | Eco-label: ***BAM*** Criteria version: ***RAL UZ171*** 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***<br>***Stand-by: 20 (dB)***<br>***Operating Mode; 60.5(dB)*** | | | |

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.

## Legal references Europe Annex B1

| Reference | Declaration item |
|---|---|
| Directive 2011/65/EU (RoHS Directive) *<br>* 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) *<br>* 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 |