Nordic Ecolabelling of

Remanufactured OEM Toner Cartridges

Version 5.7 • 15 June 2012 – 30 June 2026

Nordic Ecolabelling

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Remanufactured OEM toner cartridges 008, version 5.7, 23 January 2024

This document is a translation of an original in Swedish. In case of dispute, the original document should be taken as authoritative.

Contact information

In 1989, the Nordic Council of Ministerss decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf on their own country's government. For more information, see the websites:

Denmark
Ecolabelling Danmark
info@ecolabel.dk
www.svanemaerket.dk

Finland
Ecolabelling Finland
joutsen@ecolabel.fi
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Island
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svanurinn@ust.is
www.svanurinn.is

Sweden
Ecolabelling Sweden
info@svanen.se
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Ecolabelling Norway
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What is a Nordic Swan Ecolabelled toner cartridge?

The majority of laser printers and copying machines, and some fax machines, use toner cartridges. Cartridges contain toner powder and a drum. When a cartridge is empty, it is either disposed of or collected as part of various take-back systems.

Nordic Swan Ecolabelled toner cartridges are originally manufactured by the OEM (Original Equipment Manufacturer), and are then reused, after refurbishment and refilling, as toner cartridges, drum units or containers for toner powder. They are used for monochrome and colour printing in printers, multi-function machines, copiers and fax machines.

Nordic Swan Ecolabelled remanufactured OEM toner cartridges (hereafter referred to as Nordic Swan Ecolabelled toner cartridges) mean:

- Less waste and a lower consumption of energy and raw materials. Using toner cartridges several times reduces the total consumption of toner cartridges and accordingly the environmental impact of the product throughout its service life.
- The criteria aim to reduce waste and the product is also required to meet high standards of quality and capacity.
- There are also requirements on quality assurance of the recycling process, content of environmentally hazardous and harmful substances, and on labelling and information to the end-customer.

In the case of remanufactured toner cartridges, the production of the original OEM toner cartridge lies outside the control of the licensee. Accordingly we do not impose any requirements on the original toner cartridge, other than it must be manufactured by an OEM.

Remanufacturing and refilling toner cartridges/OPC (Optical Photosensitive Conductor) units and toner powder containers reduces levels of waste, while also lowering energy use and the consumption of raw materials.

Recycling means that used, original toner cartridges, or previously remanufactured and refilled cartridges are collected, dismantled, cleaned, checked/repaired and then reassembled and refilled with toner powder. The drum is changed frequently to ensure the quality of printouts and, in some cases, to extend the service life of the toner cartridge.

The background document regarding Nordic Swan Ecolabelled toner cartridges explains the reasoning behind each requirement. The background document can be ordered from Nordic Ecolabelling or downloaded from certain national websites, see page 2 for the addresses.

Why choose the Nordic Swan Ecolabel?

- Companies trading remanufactured and refilled OEM toner cartridges may use the Nordic Swan Ecolabel trademark for marketing. The Nordic Swan Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Swan Ecolabel is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Reducing environmental impact often creates scope for lowering costs, such as by cutting the consumption of energy and purchase of raw materials, and reducing amounts of packaging and waste.
- Environmental issues are complex. It can take a long time to gain an understanding of a specific area. Nordic Ecolabelling can be seen as an aid in this work.
- The Nordic Swan Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. Standards are set for print quality and print capacity, for example. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Swan Ecolabel?

Toner cartridges that may carry the Nordic Swan Ecolabel are originally manufactured by the OEM (Original Equipment Manufacturer), and then they are remanufactured and reassembled with toner powder, drum and the necessary drive mechanism. Remanufactured OPC units (Optical Photosensitive Conductor cartridges containing only drum) are also included in the product group.The cartridges are used for monochrome and colour electrophotographic printing and similar reproduction processes.

How to apply?

Each requirement is marked with the letter R (requirement) and a number. All requirements must be fulfilled to be awarded a licence. Applications must be submitted along with the documents specified under each specific requirement (icon ✉).

Icons in the text

The text describes how the applicant shall demonstrate fulfilment of each requirement. There are also icons in the text to make this clearer. These icons are:

✉ Enclose.

☺ Requirement checked on site or on request.

Application

For Nordic applicants, the application for a Nordic licence shall be sent to Nordic Ecolabelling in their own country, and remains valid for processing for 12 months. The application may be processed by a different country within the Nordic Ecolabelling system on agreement. The applicant will be notified of this. Companies outside the Nordic countries must apply to the ecolabelling organisation in the Nordic country where the products are primarily to be marketed.

The application documents comprise an application form and documentation demonstrating fulfilment of the requirements (the documentation required is specified in the criteria). The application form must specify in which Nordic countries the products in question are to be sold and the estimated revenue from the products in each country.

Further information and assistance may be available from the website of each country's national ecolabelling body.

Sales in the Nordic region

Once authorised, a licence is valid throughout the Nordic region. On presentation of the licence, the products are imported into each country where they are made available for sale in accordance with the information provided on the application. The products are published on Nordic Ecolabelling's website(s). The licence holder is required to inform Nordic Ecolabelling if there are any changes with regard to where the products are sold. If the product is to be sold in Nordic countries other than those initially specified in the application, the licensee must provide written notification of this and submit any extra documentation required to Nordic Ecolabelling in the country that issued the licence.

On-site inspection

During the application process, Nordic Ecolabelling performs an on-site inspection to ensure adherence to the requirements. For this inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that confirm compliance with the requirements must be available for examination. Nordic Ecolabelling's expenses for on-site inspections are stated in separate rules on fees. Please refer to the national websites for more information, see page 2.

Costs

An application fee is charged to companies applying for a licence. There is an additional annual fee based on the sales of the Nordic Swan Ecolabelled toner cartridges. Please refer to the national websites for more information, see page 2.

Questions

Please contact Nordic Ecolabelling if you have any queries or require further information. See contact information in the beginning of this document.

1 General description

R1 Description of the product

Describe the product and how it meets the definition of a product that is entitled to carry the Nordic Swan Ecolabel.
List all product names and trade names.

✉ Description as stated above plus declaration from the applicant that only toner cartridges originally manufactured by the OEM will be given the Nordic Swan Ecolabel.

2 Environmental and health requirements

2.1 Toner powder

The licence applicant must declare that requirements R2 to R6 are met for all the different toner powders used for Nordic Swan Ecolabelled toner cartridges. Appendix 2 has a declaration for the applicant, and Appendix 3 for the producer/supplier of the toner powder.

R2 Classification of toner powder

The toner powder must not be classified under the CLP Regulation (EC) No 1272/2008 as amended.

CLP Regulation (EC) No 1272/2008 as amended	
Hazard class and category	**Hazard phrase**
Environmental hazard	
Toxic to aquatic organisms – acute 1 Toxic to aquatic organisms – chronic 1/2/3/4 Dangerous to the ozone layer	H400 H410, H411, H412, H413 H420 (previously EU 059)
Carcinogenic/mutagenic/toxic for reproduction (CMR)	
Carcinogenicity Carc 1A/1B	H350
Carcinogenicity Carc 2	H351
May cause genetic defects Muta 1A/1B	H340
May cause genetic defects Muta 2	H341
Toxic for reproduction Repr 1A/1B	H360
Toxic for reproduction Repr 2	H361
Other toxicological properties	
Toxic for reproduction – effects on or through breastfeeding	H362
Specific target organ toxicity – repeated exposure 2	H373
Acutely lethal effects	
Acute toxicity 1/2	H330, H310, H300
Acute toxicity 2/3	H330, H331, H311, H301
Non-lethal permanent injury after a single exposure	
Specific target organ toxicity – single exposure 1	H370
Specific target organ toxicity – single exposure 2	H371
Serious harmful effects due to repeated or prolonged exposure	
Specific target organ toxicity – repeated exposure 1/2	H372, H373

Inhalation hazard 1	H304
Sensitising effects	
Sensitising – respiration 1, 1A and 1B	H334
Sensitising – skin 1, 1A and 1B	H317
Other hazards	
	EUH070
Acute toxicity 1/2/3	EUH029
Acute toxicity 3	EUH031
Acute toxicity 1/2	EUH032

☒ Duly completed Appendix 2 declaration from the applicant that the toner powders that will be used in the Nordic Swan Ecolabelled toner cartridges meet the requirement.

☒ Duly completed Appendix 3 declaration from the producer or supplier of the toner powders for the Nordic Swan Ecolabelled toner cartridges plus safety data sheet/product sheet in line with the prevailing legislation in the country of application (as prescribed by CLP Regulation (EC) No 1272/2008) for each toner powder.

R3 Substances of very high concern

Toner powder must not contain any substances of very high concern. See also page 3 of Appendix 3.

EDTA and its salts, sodium or calcium hypochlorite, poly and perfluorinated alkylated substances or alkylphenolethoxylates and derivatives thereof must not be added to chemicals and materials. Moreover, constituent substances categorised in REACH (Registration, Evaluation and Authorisation of Chemicals) as substances of very high concern (SVHC) and similar substances must not be added to chemicals and materials, i.e.:

1. Category 1 or category 2 CMR substances (1A and 1B in CLP). Moreover category 3 CMR substances (category 2 in CLP) are also included even if they are not classified as SVHC in REACH.
2. PBT substances (persistent, bioaccumulative and toxic) and/or vPvB substances (very persistent and very bioaccumulative) in accordance with the criteria in Annex XIII of REACH (Regulation (EC) No 1907/2006).
3. Substances considered to be endocrine disruptors or potential endocrine disruptors in accordance with the European Union's reports and lists concerning endocrine disruptors.
4. Substances recorded on the EU's Candidate List and not meeting the requirements in sections 1-3 above.

Regarding CMR classification: see classification requirements above. Titanium dioxide (TiO_2) is excluded.

As regards PBT or vPvB substances: see the list of substances fulfilling or substances that form substances fulfilling the PBT or vPvB criteria on the ESIS website (European Chemical Substances Information System). Substances that are "deferred" or substances that are "under evaluation" are not considered to have PBT or vPvB properties. http://esis.jrc.ec.europa.eu/index.php?PGM=pbt

In the event of amendments, the most recently updated version will apply.

Typical examples of PBT or vPvB substances are brominated flame retardants.

As regards endocrine disruptors: see for example the EU's priority list of endocrine disruptors in Annex L of the Final Report of the DHI study at:http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf

Substances in categories 1 and 2 are regarded as endocrine disruptors. Please note that the EU list of endocrine disruptors has a category 3, which indicates insufficient data or the existence of data showing that there is no scientific basis for inclusion on the list. Substances in category 3 are not regarded as endocrine disruptors. In the event of amendments, the most recently updated version will apply.

Typical examples of endocrine disruptors are various phthalates (e.g. DEHP, BBP, DBP, DINP and DNOP).

As regards the "Candidate List", please see the website of the European Chemicals Bureau:http://echa.europa.eu/chem_data/candidate_list_table_en.asp

The "Intention List" is a tool for monitoring SVHC developments. This list is not binding for Nordic Ecolabelling purposes, unless the substance appears on some of the other lists above, but it may be useful to stay ahead of developments:http://echa.europa.eu/chem_data/reg_int_tables/reg_int_curr_int_en.asp

✉ Duly completed Appendix 2 declaration from the applicant that all the toner powders used in the Nordic Swan Ecolabelled toner cartridges meet the requirement.

✉ Duly completed Appendix 3 declaration from the producer or supplier of the toner powder.

R4 Heavy metals

The content of the heavy metals lead, cadmium, mercury and hexavalent chromium must not exceed 100 ppm in total in toner powder.

✉ Duly completed Appendix 2 declaration from the applicant that all the toner powders used in the Nordic Swan Ecolabelled toner cartridges meet the requirement.

✉ Duly completed Appendix 3 declaration from the producer or supplier of the toner powder.

R5 Residues of aromatic amines

The content of primary unsulphonated aromatic amines soluble in 1M hydrochloric acid and expressed as aniline must not exceed 500 mg/kg and there must be no more than 10 mg/kg benzidine, ß-naphthylamine and 4-aminobiphenyl in toner powder.

Test method in accordance with European Council resolution AP (89) 1. Please refer to ETAD's test method no. 212 (7): Determination of unsulphonated primary aromatic amines in pigments and in solvent soluble dyestuffs intended for use in food packaging, November 1984. Later versions of this test method can also be used.

✉ Duly completed Appendix 2 declaration from the applicant that all the toner powders used in the Nordic Swan Ecolabelled toner cartridges meet the requirement.

✉ Duly completed Appendix 3 declaration from the producer or supplier of the toner powder.

R6 Analysis for pollutants

A test report shall declare that the analyse results for toner powder to be used for Nordic Swan Ecolabelled toner cartridges must be smaller or equal to the limit values listed in the following tables:

Table 1: Determination limits and limit values for metals

Test parameters	Determination limit [mg/kg]	Method	Limit value [mg/kg]
Cobalt	1.0	ICP-MS	25
Nickel	5.0	ICP-MS	70
Organic tin compounds (as tin)	0.1	ICP-MS	5.0

Table 2: Determination limits and limit values for volatile organic contents

Test parameters	Determination limit [mg/kg]	Limit value [mg/kg]
TVOC	100	300*
Benzene	1	1
Styrene	4	40

**Limit value different from the BGW-VW-SG2 04*

The manufacturer of the toner powder shall declare in safety data sheet (SDS) that the tested toner powder does not contain any 1-nitropyrene, benzo[a]pyrene, azo dyes or pigments that can release carcinogenic amines.

The toner powder shall be analysed in accordance with "BG-prüfzert" Toner Testing principles BGW-VW-SG2 O4 or according to "TÜV Rheinland LGA Products GmbH" analysis methods. Toner powder can also be analyzed by testing the toner cartridge in accordance with current methods in the Blue Angel Criteria RAL-UZ 177.

The test laboratory shall meet the R14 requirement.

☒ Completed Appendix 2 declaration from the applicant that all the toner powders used in the Nordic Swan Ecolabelled toner cartridges meet the requirement.

☒ A Test Report for every toner powder analysed, comprising the following:

- Details of the place, time and type of analyse performed
- Information that states that the test laboratory meet the R14 requirement.
- Designation of the toner or module
- Analysis results.
- Test lists, measurement reports, safety data sheet (SDS) according to Appendix II i REACH (1907/2006/EF) etc.

R7 Working environment

Extraction shall be provided for all handling of loose toner powder. Examples of tasks that may involve loose toner powder include disassembly of the cartridge, all handling of loose toner powder when refilling the remanufactured OEM cartridge and when adding loose toner powder to the remanufactured OEM cartridges before test printing takes place. Alternatively, the powder shall be handled in a closed process or workers handling loose toner powder shall wear breathing masks of the quality prescribed by the local authorities.

✉ Description of the handling of loose toner powder in production

2.2 Other material requirements

R8 Plastics

The Nordic Ecolabelling's Criteria Group decided on the 16 November 2017 to remove this requirement.

R9 Chlorinated plastics in packaging

The product packaging must not contain chlorinated plastics.

✉ Specification of materials used for packaging and product information for the packaging.

2.3 Reuse, take-back system and waste

R10 Reuse

The toner cartridge or container must be used by the consumer and then collected, cleaned, checked for defects, repaired and refilled with toner powder. The remanufactured OEM toner cartridge must comprise a minimum of 75% by weight recycled parts, as an average of at least 100 units.

The weight of the toner powder shall not be included in this total weight.

For remanufactured OEM toner cartridges that can be expanded to produce more printouts and that deliver at least 50% more printouts than the equivalent OEM high capacity (HC) toner cartridge type, the proportion by weight of any new toner container is excluded when calculating the proportion of recycled parts.

Example: An OEM cartridge comes in an "A" and an "X" version. The "X" version is an HC cartridge that delivers 4,000 prints as specified by the OEM. A remanufactured OEM "A" or "X" cartridge that is expanded with the addition of a new toner container must deliver at least 4,000 + 2,000 = 6,000 printouts to fulfil the requirement.

✉ Specification of the proportion by weight of recycled parts in each cartridge type and which parts are replaced during remanufacturing and refilling.

✉ The specification for the expanded cartridge type with a new toner container must contain information on the number of printouts from the remanufactured OEM toner cartridge type. Testing is to be carried out in accordance with the chosen method in R16. The specification from the OEM may be used to state the number of printouts from the equivalent OEM HC toner cartridge type.

R11 Take-back system for remanufacturing

To ensure that the products are returned for recycling, a cartridge take-back system must be in place.

Agreements between the manufacturers and distributers/resellers shall include a clause stating that the distributer/reseller shall, via their website, provide a take-back system.

Private consumers

Private consumers must be able to return individual toner cartridges free of charge. The licensee may also recommend other free methods of returning single toner cartridges for private consumers.

Business customers

The return system may comprise one or more of the following measures:

- The licensee's / distributor's / reseller's business customers should be able to order and return collection boxes from the licensee.
- Prepaid address label or packaging for return supplied with individual products.

Nordic Ecolabelling may approve alternative take-back systems.

✉ Description of the take-back system including the terms of agreements between the licensee and distributors / resellers detailing rules on how the take-back system must be designed in order to fulfil the requirement.

☺ Signed agreements from all distributors and resellers shall be kept by the licensee and be available for presentation on a site visit. The documentation shall be available to Nordic Ecolabelling on request.

R12 Waste

All waste from production and preceding preliminary sorting must be sorted at source, and the various fractions (e.g. plastic and metal) shall principally be recycled. All toner powder waste must be packed up in suitably sealed packaging to minimise spillage. If there is documented evidence that a fraction cannot be recycled, the fraction must nevertheless be dealt with in an environmentally acceptable manner.

✉ Waste plan detailing waste treatment and sorting at the site of manufacture and at the sorting facilities.

✉ The plan must include information on how the various fractions are dealt with and which companies the applicant engages for waste handling. The waste plan must also specify any waste fractions that cannot be recycled. Copies of contracts or invoices are accepted as documentation. If the waste is classified as environmentally hazardous in accordance with national legislation/regulations, this must be stated.

3 Performance

R13 Production quality

The annual average level of complaints relating to Nordic Swan Ecolabelled products must not exceed 1%. Only complaints relating to Nordic Ecolabelling criteria shall be included in this calculation.

The level of complaints shall be calculated monthly for each type of Nordic Swan Ecolabelled toner cartridge. These complaint figures shall be used actively to assure and raise the quality. If the level of complaints exceeds 1% for a month, a report shall be submitted detailing the reasons and remedial actions. If the level of complaints exceeds 2%, contact Nordic Ecolabelling.

✉ Specification of complaints shall include types of product-related complaint, how claims are dealt with, the follow-up of production and contact with Nordic Ecolabelling.

R14 Analysis laboratory

The analysis laboratory for testing shall fulfil the general requirements of standard EN ISO 17025 or have official GLP status.

The applicant shall be liable for the documentation and analysis costs.

The applicant's own analysis laboratory/test procedure may be approved for analysis and testing if:

- the manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9001 or
- the manufacturer can demonstrate agreement between a first-time test conducted at the manufacturer's own laboratory and testing carried out in parallel at an independent test institute.

✉ Declaration from the analysis laboratory that the requirement is fulfilled.

R15 Print quality

All toner cartridges must be tested to and comply with one of the following standards/test methods:

- DIN Technical Report No. 155:2007-09
- ASTM F:2036 for monochrome printouts
- DIN 33870-1 for monochrome printouts
- DIN 33870-2 for colour printouts

For applications and the extension of a licence, each Nordic Swan Ecolabelled toner cartridge type shall be tested.

During the licence period, print quality must be tested annually for 50% of the Nordic Swan Ecolabelled toner cartridge types.

If the toner powder and/or the drum are changed during the licence period, the relevant cartridge type shall be tested.

✉ Independent auditors (from a third-party company such as TÜV, STMC, Dekra, Intertek etc) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method for print quality for remanufactured OEM toner cartridges, and provide a CV to support the expertise of the auditor in assessing how the applicant is applying the test methods used. Alternatively, the applicant may be certified under the STMC certification system. In both cases, documentation must show that the applicant has a valid declaration or STMC certificate. Specify the test standard and describe the test process in production. See also Appendix 4.

☺ Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

R16 Print capacity

All toner cartridges must be tested to and comply with one of the following standards/test methods:

- DIN Technical Report No. 155:2007-09
- ISO/IEC 19752:2017 for monochrome cartridges

- ISO/IEC 19798:2017 for colour cartridges
- DIN 33870-1 for monochrome cartridges
- DIN 33870-2 for colour cartridges
- ASTM F:1856

During the licence period, print capacity must be tested annually for 50% of the Nordic Swan Ecolabelled toner cartridge types.

For applications and the extension of a licence, each relevant toner cartridge type shall be tested.

If the toner powder and/or the drum are changed during the licence period, the relevant cartridge type shall be tested in accordance with the chosen test method as outlined above.

Requirement level for print capacity for each cartridge type in application, in a comparison of the test results between the remanufactured OEM cartridge type and the equivalent OEM cartridge type: The average value for the remanufactured OEM cartridge type must not fall below -10% in the above comparison.

The above requirement level is applicable irrespective of the standard or test method used.

✉ Independent auditors (from a third-party company such as TÜV, STMC, Dekra, Intertek etc) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method for print capacity for remanufactured OEM toner cartridges, and provide a CV to support the expertise of the auditor in assessing how the applicant is applying the test methods used. Alternatively, the applicant may be certified under the STMC certification system. In both cases, documentation must show that the applicant has a valid declaration or STMC certificate. Specify the test standard and describe the test process in production. See also Appendix 4.

☺ Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

4 Quality and regulatory requirements

To ensure that Nordic Ecolabelling requirements are fulfilled, the following procedures must be implemented.

If the applicant or manufacturer of the ecolabelled product has an environmental management system that is certified to ISO 14 001 or EMAS and the following procedures are applied, it is sufficient if the accredited auditor certifies compliance with the requirements.

R17 Licence administrators

The company shall appoint an individual responsible for ensuring the fulfilment of Nordic Ecolabelling requirements, and a contact person for communications with Nordic Ecolabelling.

✉ Organisational chart showing who is responsible for the above.

✉ A procedure detailing what happens when a contact person or licence administrator leaves or changes job.

The procedural requirement above is linked to Appendix 7.

R18 Documentation

The licensee must be able to present a copy of the application and factual and calculation data supporting the documents submitted with the application (including test reports, documents from suppliers and suchlike).

☺ On-site inspection.

R19 Planned changes

Written notice of planned product and marketing changes that affect the Nordic Ecolabelling requirements must be given to and approved by Nordic Ecolabelling.

✉ Procedures detailing how planned product and marketing changes are dealt with.

R20 Unforeseen non-conformities

Unforeseen non-conformities that affect Ecolabelling requirements must be reported to and approved by Nordic Ecolabelling in writing and logged.

✉ Procedures detailing how unforeseen non-conformities are handled.

R21 Traceability

The licensee must have a traceability system for the production of the Nordic Swan Ecolabelled cartridges. The traceability must, as a minimum, report date of manufacture, toner powder used and other parts that have been replaced for each toner cartridge.

✉ Description of/procedures for fulfilment of the requirement.

R22 Legislation

The licensee must guarantee adherence to applicable patent legislation, safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Nordic Swan Ecolabelled toner cartridge is manufactured.

✉ Declaration from the licensee that the requirement is met and the contact details of the regulatory authorities for health and safety issues, environmental legislation and site-specific terms/concessions. Appendix 5 can be used.

R23 Take-back system – nationally regulated systems

The Nordic Ecolabelling's Criteria Group decided on the 9 October 2017 to remove this requirement.

5 Information

R24 Customer information

The following end-user information requirements must be fulfilled:

a) The packaging must be clearly marked with:

- The Nordic Swan Ecolabel and the licence number.
- Information that the toner cartridge is part of a recycling process.
- Information that the empty cartridge should be sent for remanufacturing, not thrown away.
  If the cartridge is sold along with packaging for return, this must be specified in the information. It must also be stated that the pre-paid envelope (if provided) can be used for return.

b) Information that the cartridge is originally an OEM cartridge that has been remanufactured, refilled and quality controlled. There should be reference to Nordic Ecolabelling's website.

c) Instructions must be marked with the Nordic Swan Ecolabel and licence number.

d) The end-user of the toner cartridge must be given clear, simple information that inhaling of toner powder can be harmful to health, plus instructions on how to handle any loose toner powder that may arise, due to a damaged cartridge.

e) The consumer should also be provided with information regarding warrantyand complaint procedures. The information shall be provided in writing in the Nordic languages applicable to the markets in which the product is sold.

✉ Example of the labelling of packaging (copy or photo) and product information provided to the customer.

✉ Procedures detailing how the applicant ensures that the product information required is provided with the product packaging.

R25 Information to resellers and distributors

The Nordic Ecolabelling's Criteria Group decided on the 16 November 2017 to remove this requirement.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

More information on graphical guidelines, regulations and fees can be found at www.svanen.se/regulations/ or at https://www.nordic-swan-ecolabel.org/regulations/

Follow-up inspections

Nordic Ecolabelling may check that the toner cartridge continues to meet the Nordic Ecolabelling requirements after a licence has been granted. This may involve a site visit, random sampling or a similar test.

The licence may be revoked if it is evident that the toner cartridge does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory or Nordic Ecolabelling. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

Criteria version history

Nordic Ecolabelling adopted the criteria for toner cartridges version 5 on 15 June 2012. The criteria are valid until 30 June 2016.

The Secretariat managers meeting on 15 November 2012 decided to adopt changes of requirements R6, R14, R15 and R16. The new criteria for toner cartridges version 5.1 are valid until 30 June 2016.

On 8 February 2016 the Nordic Ecolabelling Criteria group decided to prolong the validity of the criteria document. The new version is called 5.2 and it is valid until 30 June 2018. In requirement R6, an alternative metod to analyse toner powder was introduced (Blaue Engel RAL-UZ 177). Some minor editorial changes were also done in the Criteria. The requirement for Marketing (in R25) was removed due to the decision made by the Board of Directors on 17 November 2014.

Nordic Ecolabelling's Criteria Group decided on 15 March 2017 to prolong the criteria with 18 months to the 31 December 2019. The new version is called 5.3.

On the 9 October 2017 Nordic Ecolabelling's Criteria Group decided to remove R23 Take-back system. Furthermore, the Nordic Ecolabelling's Criteria Group decided on 16 November 2017 to prolong the criteria with 36 months to the 31 December 2022. The new version is called 5.4.

On the 16 of November 2017 the Nordic Ecolabelling Criteria Group decided to clarify R11, R13 and R24, update R2, R6 and R16, and remove R8 and R25. The new version is 5.5.

On the 22 September 2020 Nordic Ecolabelling decided to adjust requirement R3 by making an exemption for Titanium dioxide (TiO_2). Furthermore, Nordic Ecolabelling

decided on the 20 October 2020 to prolong the criteria with 24 months to the 31 December 2024. The new version is called 5.6.

Nordic Ecolabelling decided on 23 January 2024 to prolong the criteria with 18 months to the 30 June 2026. The new version is called 5.7.

New criteria

During the next review of the criteria for toner cartridges, planned in approximately three years time, Nordic Ecolabelling will investigate the following areas:

- Whether the scope of the product group can be extended to include other manufacturing methods.
- Whether it is possible to adopt new requirements to improve the take-back systems for used toner cartridges.
- Whether it is possible to develop requirements for the transport of toner cartridges.
- Whether it is possible to develop requirements for biobased toner powder and materials.
- Whether the product group should be extended to apply to ink cartridges and other types of printing method.

Appendix 1 Description of the analysis methods

The Nordic Ecolabelling's Criteria Group decided on the 17 November 2017 to remove this appendix.

Appendix 2 Declaration of summary and toner list

The application must include the summary below certifying fulfilment of requirements R2 to R6.

A list of toner powders must also be included. The toner list shall contain all toner powders used in the Nordic Swan Ecolabelled toner cartridges.

The following headings must be used in the toner list:

1. Product name of the toner cartridge
2. Product name of the toner powder
3. Toner supplier
4. Estimated quantity of toner powder used per year

Summary covering requirements R2 to R6

Summary declaration for all toner powders used in the Nordic Swan Ecolabelled toner cartridges.	**Is the requirement fulfilled?**	
Requirement	Yes	No
R2 – Classification of toner powder according to Appendix 3	☐	☐
R3 – Substances of very high concern according to Appendix 3	☐	☐
R4 – Heavy metals according to Appendix 3	☐	☐
R5 – Aromatic amine residues according to Appendix 3	☐	☐
R6 – Testing for pollutants according to Appendix 3	☐	☐

It is hereby certified that the above summary and toner list are valid for the application from the company:

Place and date	Company
Signature, contact person	
Name (BLOCK CAPITALS)	Phone

Appendix 3 Declaration of classification of toner powder and of constituent substances in toner powder

Name of toner powder:
Producer/Supplier of toner powder:

Colour and type of toner powder:

Colour
☐ Black
☐ Cyan
☐ Magenta
☐ Yellow
☐ Other colour

Type:
☐ Mechanically processed
☐ Chemically processed

Classification of toner powder (R2)

CLP Regulation (EC) No 1272/2008 as amended	
Hazard class and category	**Hazard phrase**
Environmental hazard	
Toxic to aquatic organisms – acute 1 Toxic to aquatic organisms – chronic 1/2/3/4 Dangerous to the ozone layer	H400 H410, H411, H412, H413 H420 (previously EU 059)
Carcinogenic/mutagenic/toxic for reproduction (CMR)	
Carcinogenicity Carc 1A/1B	H350
Carcinogenicity Carc 2	H351
May cause genetic defects Muta 1A/1B	H340
May cause genetic defects Muta 2	H341
Toxic for reproduction Repr 1A/1B	H360
Toxic for reproduction Repr 2	H361
Other toxicological properties	
Toxic for reproduction – effects on or through breastfeeding	H362
Specific target organ toxicity – repeated exposure 2	H373
Acutely lethal effects	
Acute toxicity 1/2	H330, H310, H300
Acute toxicity 2/3	H330, H331, H311, H301
Non-lethal permanent injury after a single exposure	
Specific target organ toxicity – single exposure 1	H370
Specific target organ toxicity – single exposure 2	H371
Serious harmful effects due to repeated or prolonged exposure	
Specific target organ toxicity – repeated exposure 1/2	H372, H373
Inhalation hazard 1	H304
Sensitising effects	
Sensitising – respiration 1, 1A and 1B	H334
Sensitising – skin 1, 1A and 1B	H317
Other hazards	

	EUH070
Acute toxicity 1/2/3	EUH029
Acute toxicity 3	EUH031
Acute toxicity 1/2	EUH032

☒ A product information sheet is to be included for the toner powder.

The toner powder is not classified and is not subject to classification according to the above listed hazard classes and hazard categories with associated risk phrases and hazard statements:

Date	Company name
Phone	Signature of responsible officer

Declaration of constituent substances in toner powder (R3 to R6)

Name of toner powder:
Producer/Supplier of toner powder:

Substances of very high concern (R3)

Toner powder must not contain EDTA additives or their salts, sodium or calcium hypochlorite, poly and perfluorinated alkylated substances (PFAS), or alkylphenol ethoxylates or their derivatives. Moreover, constituent substances categorised in REACH (Registration, Evaluation and Authorisation of Chemicals) as substances of very high concern (SVHC) and similar substances must not be added to chemicals and materials, i.e.:

1. Carcinogenic/mutagenic/reproduction toxic (CMR) substances of Category 1 or 2. CMR substances of category 3 are also included even if not classed as SVHC by REACH.
2. PBT substances (persistent, bioaccumulative and toxic) and/or vPvB substances (very persistent and very bioaccumulative) in accordance with the criteria in Annex XIII of REACH (Regulation (EC) No 1907/2006).
3. Substances considered to be endocrine disruptors or potential endocrine disruptors in accordance with the European Union's reports and lists concerning endocrine disruptors.
4. Substances recorded on the EU's Candidate List and not meeting the requirements in sections 1-3 above.

CMR classification: see classification requirements above.

PBT and vPvB: see the list of substances that fulfil or substances that contribute to substances that fulfil the PBT or vPvB criteria on the website of the European Chemical Bureau (ECB). Substances that are "deferred" or substances that are "under evaluation" are not considered to have PBT or vPvB properties.

http://ecb.jrc.it/esis/index.php?PGM=pbt

In the event of amendments, the most recently updated version will apply.

Typical examples of PBT or vPvB substances are brominated flame retardants.

Endocrine disruptors: see for example the EU's priority list of endocrine disruptors in Annex L of the Final Report of the DHI study at:
http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf

Substances in categories 1 and 2 are regarded as endocrine disruptors. Please note that the EU list of endocrine disruptors has a category 3, which indicates insufficient data or the existence of data showing that there is no scientific basis for inclusion on the list. Substances in category 3 are not regarded as endocrine disruptors. In the event of amendments, the most recently updated version will apply.

Typical examples of endocrine disruptors are various phthalates (e.g. DEHP, BBP, DBP, DINP and DNOP).

Candidate list: see EU website: http://echa.europa.eu/chem_data/candidate_list_table_en.asp

The Intention List is a tool for monitoring SVHC developments. The list is not binding for Nordic Ecolabelling purposes, but it may be useful to stay ahead of developments:
http://echa.europa.eu/chem_data/reg_int_tables/reg_int_curr_int_en.asp

Is the requirement fulfilled? Yes ☐ No ☐

Heavy metals (R4)

The content of the heavy metals lead, cadmium, mercury and hexavalent chromium must not exceed 100 ppm in total in toner powder.

Is the requirement fulfilled? Yes ☐ No ☐

Residues of aromatic amines (R5)

The content of primary unsulphonated aromatic amines soluble in 1M hydrochloric acid and expressed as aniline must not exceed 500 mg/kg and there must be no more than 10 mg/kg benzidine, ß-naphthylamine and 4-aminobiphenyl in toner powder.

Test method in accordance with European Council resolution AP (89) 1. Please refer to ETAD's test method no. 212 (7): Determination of unsulphonated primary aromatic amines in pigments and in solvent soluble dyestuffs intended for use in food packaging, November 1984. Later versions of this test method can also be used.

Is the requirement fulfilled? Yes ☐ No ☐

Analysis for pollutants (R6)

A test report shall declare that the analyse results for toner powder to be used for Nordic Swan Ecolabelled toner:

Table 1: Determination limits and limit values for metals

Test parameters	Determination limit [mg/kg]	Method	Limit value [mg/kg]
Cobalt	1.0	ICP-MS	25
Nickel	5.0	ICP-MS	70
Organic tin compounds (as tin)	0.1	ICP-MS	5.0

Table 2: Determination limits and limit values for volatile organic contents

Test parameters	Determination limit [mg/kg]	Limit value [mg/kg]
TVOC	100	300*
Benzene	1	1
Styrene	4	40

** Limit value different from the BGW-VW-SG2 04*

The manufacturer of the toner powder shall declare in safety data sheet (SDS) that the tested toner powder does not contain any 1-nitropyrene, benzo[a]pyrene, azo dyes or pigments that can release carcinogenic amines.

The toner powder shall be analysed in accordance with “BG-prüfzert” Toner Testing principles BGW-VW-SG2 O4 (the analysing methods are described in appendix 1) or according to “TÜV Rheinland LGA Products GmbH” analysis methods. Toner powder can also be analyzed by testing the toner cartridge in accordance with current methods in the Blue Angel Criteria RAL-UZ 177.

The test laboratory shall meet the R14 requirement.

Are the requirements fulfilled? Yes ☐ No ☐

Producer/Supplier of toner powder:	
Date	Signature of responsible officer
Phone	Name (BLOCK CAPITALS)

Appendix 4 Declaration of print quality and print capacity testing

Print quality (R15)

All toner cartridges in the application comply with and have been tested in line with the requirement: ☐	Yes ☐ No
The following test standard was used:	
The test process is described in the following document:	

Print capacity (R16)

All toner cartridges in the application comply with and have been tested in line with the requirement:	Yes ☐ No ☐
All toner cartridge types in the application meet the requirement level* for print capacity for each cartridge type:	Yes ☐ No ☐
The following test standard was used:	
The test process is described in the following document:	

**Definition: Requirement level for print capacity for each cartridge type in application, in a comparison of the test results between the remanufactured OEM cartridge type and the equivalent OEM cartridge type:*

The average value for the remanufactured OEM cartridge type must not fall below -10% in the comparison as defined above.

An independent auditor from a third-party company confirms in the enclosed appendix that testing has been carried out in line with requirements R15 and R16.	Enclose appendix:
The third-party company above confirms in the enclosed appendix that the auditor is familiar with the applied test methods above for print quality and print capacity for remanufactured OEM toner cartridges, and confirms the expertise of the auditor (e.g. with a CV) in assessing how the applicant is applying the test methods used.	Enclose appendix:
Alternative to the above appendices: The applicant is certified under the STMC certification system. Evidence must be enclosed showing that the applicant has a valid STMC certificate.	Enclose: STMC certificate

Any non-conformities are to be detailed in appended documentation.

We declare that all toner cartridges in the application comply with and are tested in line with requirements R15 and R16 in the criteria for Nordic Ecolabelling of Remanufactured OEM Toner Cartridges version 5.

Place:	Date:
Company name:	
Signature contact person:	
Name (BLOCK CAPITALS):	

Appendix 5 Declaration of statutory compliance

Declaration of statury compliance

We hereby declare adherence to applicable patent legislation, safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Nordic Swan Ecolabelled toner cartridge is manufactured.

Contact information for the regulatory authority for:	**See appendix/appendices:**
Working environment:	
Environmental legislation:	
Site-specific terms/concessions:	

Place:	Date:
Company name:	
Signature contact person:	
Name (BLOCK CAPITALS):	

Appendix 6
Declaration from supplier of toner cartridge parts

The Nordic Ecolabelling's Criteria Group decided on the 16 November 2017 to remove this appendix.

Appendix 7 Agreement between the licensee and resellers/distributors

The Nordic Ecolabelling's Criteria Group decided on the 17 November 2017 to remove this appendix.