Nordic Ecolabelling for

Cleaning products



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Nordic Ecolabelling

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

Addresses

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

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It may be quoted from provided that Nordic Ecolabelling is stated as the source.

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What is a Nordic Swan Ecolabelled cleaning product?

Nordic Swan Ecolabelled cleaning products are among the best cleaning products in terms of environmental profile. The whole life cycle of the products is taken into account and strict requirements are set concerning the environmental and health effects of the constituent substances and with regard to packaging. The use phase and raw material extraction are also taken into account in the requirements.

The environmental requirements include strict requirements as to the content of environmentally harmful substances and substances not readily degradable in aquatic environments. The environmental impact of cleaning products affects the aquatic environment since the products are released into the water after use. Properties such as biodegradability, bioaccumulation and toxicity for aquatic organisms are therefore important parameters for the constituent substances.

The chemical content of the products is also subject to requirements in areas such as fragrance, preservatives and allergenic substances.

The effect of the products on the environment also depends on the way in which they are used. There is therefore a requirement for dosing instructions and a requirement for performance testing to show that the product is effective at the recommended dose.

Packaging requirements limit the use of packaging materials, as well as contribute to resource efficiency and a circular economy.

Sustainable extraction of raw materials is a vital global issue with a major environmental impact. We raise awareness of this issue via information and policy requirements and the requirement for sustainably produced palm oil helps us contribute to the production of more sustainable raw materials.

Nordic Swan Ecolabelled cleaning products:

- Meet strict requirements concerning environmentally hazardous chemicals, including requirements on ecotoxicity and biodegradability
- Meet strict requirements concerning chemicals that are harmful to health, including a ban on the sensitising preservative MI
- Offer effective cleaning performance with a small amount, so the product lasts longer and conserves the planet's resources.
- Packaging requirements contribute to a circular economy, for example by addressing packaging design and material choices.

Why choose the Nordic Swan Ecolabel?

- Licence holder 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 simple way of communicating environmental work and commitment to customers.
- The Nordic Swan Ecolabel clarifies the most important environmental impacts and thus shows how a company can cut emissions, resource consumption and waste management.
- Environmentally suitable operations prepare products for future environmental legislation.
- Nordic Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Swan Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Swan Ecolabel?

The criteria apply in the first instance to general cleaning and not specialist cleaning products.

Cleaning products designed to clean fixed, hard surfaces (floors, walls, countertops, windows etc.) in the form of concentrated products and RTU (Ready-to-use) products.

The product group encompasses cleaning products intended for indoor (window cleaners for outdoor use included), general and regular cleaning of:

- fixed surfaces (floors, walls, ceilings, doors, tiles and windows (window cleaners for outdoor use are also included))
- kitchen equipment (for example windows, work surfaces, kitchen cabinets, stoves)
- sanitary installations (WCs, baths, showers, wash basins, cabinets)

Wash polish/wash-and-wax care products and concentrated products for the professional market containing microorganisms are also included in the product group.

Products for the professional market (products are considered professional if more than 80% of sales are to the professional market) and/or consumer products can be labelled.

Sub-categories

Concentrated, professional: This category includes professional products that require dilution with water prior to use. It contains products for all the aforementioned surfaces, such as floors, walls, ceilings, windows (indoor and outdoor), kitchen work surfaces, tiles, WCs, bathtubs and showers.

Tablets/capsules/granulates are included in this category. Wash polish/wash-and-wax care products for professional use are also included.

RTU (Ready-to-use), professional (other): Professional products that are pre-diluted and ready for use. This category includes products for WCs, kitchens, oven, bathtubs, showers, windows and so on, but not for large areas* such as floors.

Spray, professional: Spray/foam products (for professional use) that are pre-diluted and ready for use straight from the package. See requirement O18.

RTU, window cleaner, consumer and professional: Professional window and glass cleaners that are pre-diluted and ready for use straight from the package.

Concentrated, consumer: Concentrated products that require dilution with water prior to use and are designed for the consumer market. This category contains products for all the aforementioned surfaces in the home, such as floors, walls, ceilings, windows (inside and outside), kitchen work surfaces, tiles, WCs, bathtubs and showers. Tablets/capsules for WCs are included in this category. Wash polish/wash-and-wax care products for consumer use are also included.

RTU, WC, consumer: Consumer WC cleaners that are pre-diluted and ready for use straight from the package. This category only includes products for use on WCs, and excludes cleaners for other sanitary porcelain and bathroom cleaners.

RTU, consumer (other): Pre-diluted consumer products that are ready to use without dilution. This includes products for kitchens, ovens, bathtubs, bathtubs, showers and so on, but not for large areas* such as floors.

**The term large areas refers to areas such as floors and tiled bathroom walls. RTU products shall be intended for use on smaller surfaces and "spot cleaning".*

Concentrated products that can be used both in a diluted state, such as diluted in a bucket of water, and in a more concentrated state, such as diluted with a small quantity of water for use in a spray bottle, must fulfil the requirements for both concentrated (diluted in bucket) and RTU (spray bottle) products.

Products that are sold on both professional and consumer markets must fulfil the requirements for professional products.

Products designed for several areas of use, such as WC and bathroom cleaner (walls, floor and so on), must fulfil the requirements of each applicable category.

Cleaning products intended for specialist cleaning purposes cannot be ecolabelled under these criteria. This includes products intended solely for the purpose of:

- limescale removal
- unblocking blockages, cleaning drains

- restricting or preventing biological growth (algae, mould, bacteria)
- total or partial disinfection
- continuous cleaning, e.g. fragrance block for cleaning WCs
- cleaning products for refrigerated rooms
- cleaning wipes

In the event of dispute, Nordic Ecolabelling will determine whether a product may be ecolabelled under these criteria.

How to apply

Application and costs

For information about the application process and fees for this productgroup, please refer to the respective national web site. For addresses see page 3.

What is required?

The application must consist of an application form/web form and documentation showing that the requirements are fulfilled.

Each requirement is marked with the letter O (obligatory requirement) and a number. All requirements must be fulfilled to be awarded a licence.

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

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

License validity

The Nordic Swan Ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be extended or adjusted, in which case the licence is automatically extended and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

On-site inspection

In connection with handling of the application, Nordic Ecolabelling normally performs an on-site inspection to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that support the application must be available for examination.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 3 for addresses. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

1 General requirements

The definition of constituent substances is included to explain what is meant by constituent substances and impurities. The requirement has been changed compared with the previous generation of the criteria. The aim has been to make the criteria easier to understand.

Definition:

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements

- Ingoing substances: all substances in the Nordic Swan Ecolabelled product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the Nordic Swan Ecolabelled product.
- Impurities in the raw materials exceeding concentrations of 1,0 % (≥ 0,1000 w-%, ≥ 1000 mg/kg) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O1 Description of the product

The applicant must give detailed information on the cleaning product to which the application relates. The following information is required:

- Description of the product, including its area of use, in accordance with "What can carry the Nordic Swan Ecolabel?" (consumer/professional product, RTU or concentrated, and so on)
- User instructions that clearly explain how the product should be used.
- If the product is designed to be diluted before use, the recommended dose for normal soiling/normal use must be stated clearly and simply on the label/packaging and in the technical product data sheet
    - For consumer products, the dosing must be stated as x number of millilitres to y litres of water or as z number of caps to y litres of water.
    - For products intended for professional use, the dosing may, for example, be stated as x ml or an equivalent y pumps or similar per z litre of water. The information sheet or technical data sheet must include a recommendation on dosing equipment (e.g. pump, measuring vessel, pipette or similar).

- A complete formulation for the product. The formulation must, if possible, include for each constituent substance:
    - Trade name
    - Chemical name
    - Amount (both with and without solvents, e.g. water)
    - CAS no. / EC no.
    - Function
    - DID no. for substances that can be placed in the DID list
- A safety data sheet for each raw material

If a raw material consists of several substances, data for all ingoing substances is to be stated in the formulation.

The DID number is an ingredient's number on the DID list, version 2016 or later, which is used in calculating chemical requirements. The DID list can be obtained from Nordic Ecolabelling's websites, see addresses on page.

☒ Description of the product in accordance with "What can carry the Nordic Swan Ecolabel?", e.g. label or other documentation.Label and product data sheet (if available) that includes dosing and user instructions. The information on labels and/or product data sheets must be in the languages in which the product is marketed.

☒ A complete formulation in line with the requirement. Nordic Swan Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites.

☒ Safety data sheets for each ingredient in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/E2EC).

O2 Classification of the product

The product must not be classified as shown in Table O2:

Tabell O2 Classification of the product

CLP Regulation 1272/2008		
Classification	Hazard Class and Category Code	Hazard statement
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 4	H400 H410 H411 H412 H413
Hazardous to the ozone layer	Ozone	H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Reproductive toxicity*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3 Acute Tox 4 Acute Tox 4 Acute Tox 4 Exception: Professional products can be labelled with Acute toxicity, Category 4 with H332, H312, H302 if the packaging is designed so that the user does not come in contact with the product	H300 H310 H330 H301 H311 H331 H302 H312 H332
Specific target organ toxicity, singel or repeated exposure	STOT SE 1 STOT SE 2 STOT RE 1 STOT RE 2 Spray products (consumer and professional) also: STOT SE with H335, Eye Dam.1 with H318	H370 H371 H372 H373
Skin corrosion/irritation	Skin Corr. 1A, 1B or 1C Exceptions: - Professional products where classification is due to pH. - WC-products for consumers where the classification is due to pH.	H314
Serious eye damage/eye irritation	Eye Dam.1	H318
Aspiration hazard	Asp. Tox. 1	H304
Respiratory or skin sensitisation	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B or products labelled with EUH208: “Contains (name of sensitising substance). May cause an allergic reaction.”	H334 H317

***** *The classifications concern all classification variants. For example, H350 also covers classification H350i.*

Please note that the producer/supplier is responsible for the classification.

☒ Safety data sheets for the product in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/E2EC).

☒ Description of the packaging design showing that the user is not in contact with the product for the professional products for which an exemption is made from the requirement of classification as H332, H312 and/or H302. Documentation in the form of a technical description and user instructions showing how the user avoids contact with the product.

☒ Documentation confirming that the product (professional products and WC products for consumers) has been classified as corrosive due to its pH value, if an exemption is made for H314.

2 Sustainable raw materials

O3 Sustainable raw materials

1. The licence holder must document that they are working to increase their purchasing of sustainable and renewable raw materials or that they require their manufacturer to work on increasing their purchasing of sustainable renewable raw materials for Nordic Swan Ecolabelled products. The targets must be quantitative and time-based, and they must be set by the company's management.
2. The following data is required for each organic raw material/ingredient in the Nordic Swan Ecolabelled cleaning product:
   a) The proportion of the raw material/constituent part of the raw material/ingredient that comprises renewable raw material or originates from renewable raw material, calculated on an annual basis.
   b) What does the renewable raw material consist of (e.g. palm oil, coconut oil, grape seed oil, beeswax)? State the name of the supplier.
   c) Does the renewable raw material have any sustainability certification? If yes, state which and at what level of traceability (No Traceability, Identity Preserved, Segregated, Mass Balance, Book & Claim)?

✉ 1. Policy or equivalent documentation of the licence holders work for renewable and sustainable materials, including quantitative, time-based targets.

✉ 2. Appendix 3 from the raw material supplier.

O4 Certified raw materials from oil palms

Palm oil, palm kernel oil and palm oil derivatives must be certified according to RSPO. Mass Balance, Segregated or Identity Preserved are accepted as traceability systems.

✉ Information from råvaruproducenten wheher palm oil, palm kernel oil or palm oil or palm kernel oil derivatives are included in the raw material, Appendix 2 can be used.

✉ A valid RSPO CoC certificate

✉ The producer of raw materials or the producer of the Nordic Swan Ecolabelled product must show by means of a balance calculation and/or invoices that the proportion of certified raw material corresponds to the amount of certified palm oil raw materials. Alternatively, a declaration from the producer of raw materials that all purchased palm oil raw materials are certified.

3 Requirements for constituent substances

O5 Klassificering av ingående ämnen

Ingoing substances in the product must not be classified as shown in Table O5:

Table O5 Classification of ingoing substances

CLP Regulation 1272/2008:		
Classification	Hazard Class and Category Code	Hazard statement
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351**
Mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 -	H360 H361 H362
Respiratory or skin sensitisation***	Resp. Sens. 1 Skin Sens. 1	H334 H317

* The classifications concern all classification variants. For example, H350 also covers classification H350i.

** Exceptions: Complexing agents of the MGDA and GLDA type may contain NTA impurities in the raw material in concentrations of less than 0.2%, if the concentration of NTA in the cleaning product is below 0.1%.

***The following substances are exempt:

- Enzymes (including stabilisers and preservatives in the enzyme raw material) can be included if they are in liquid form or granulate capsules. The exception does not apply to spray or foam products.
- Microorganisms in professional products, see also requirement O9. The exception does not apply to spray or foam products.
- Fragrance can be included in the final product, see requirement O7 on fragrances. The exception does not apply to professional spray or foam products.
- Sensitising preservatives, but see also requirement O6 Prohibited substances and O8 Preservatives. The exemption does not apply to spray or foam products.

✉ Safety data sheet for each raw material in line with European legislation (Annex II to REACH, Regulation (EC) No 1907/2006).

✉ Appendix 2 and 3 or equivalent certification completed and signed.

✉ Formulation (for spray products)

O6 Prohibited substances

The following substances are excluded from use in the product:

- Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)
- EDTA (Ethylene diamine tetraacetate and its salts) and DTPA (Diethylenetriamine pentaacetate)
- Quarternary ammonium salts that are not readily degradable
- Organic chlorine compounds and hypochlorites

- Methyldibromo glutaronitrile (MG, CAS 35691-65-7)
- Nitro musks and polycyclic musk compounds
- phthalates
- Phosphorous

  There is an exemption for solid soap products (e.g. soap flakes) may as a total contain 0.06% EDTA and phosphonates.

- < 0.5% VOC

  Volatile organic compounds are defined in accordance with the European Commission's directive 1999/13/EC on the limitation of emissions of volatile organic compounds with steam pressure > 0.01 kPa at 20°C.

- Fluorine surfactants and other per- and polyfluorinated compounds (PFC)
- BHT (butylated hydroxytoluene, CAS 128-37-0)

  There is an exemption for BHT in fragrances in quantities of ≤100 ppm, on condition that the amount in the cleaning product does not exceed 1 ppm.

- D4 (octamethylcyclotetrasiloxane, CAS 556-67-2),

  D5 (decamethylcyclopentasiloxane, CAS 541-02-6),

  D6 (dodecamethylcyclohexasiloxane, CAS 540-97-6)

- Microplastics

  Microplastics are defined here as plastic particles that are insoluble (in water), smaller than 1 mm and non-biodegradable under OECD 301 A–F.

- Substances that are considered to be potential endocrine disruptors in category 1 or 2, according to official lists within the EU. The EU's report on endocrine disruptors can be read in full at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 onwards)
- Substances evaluated by the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated, but which meet these criteria.
- Substances judged to be "Substances of very high concern", which are included on the Candidate List: https://echa.europa.eu/candidate-list-table.
- Nanomaterials/particles

  Nanomaterials/particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011: "A natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions are in the size range of 1-100 nm." Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.

☒ A duly completed and signed declaration of compliance with the requirement, Appendix 2 or similar documentation for the product, Appendix 3 or similar signed documentation for the raw materials.

O7 Fragrances

The requirement also includes fragrances in plant extracts:

a) Fragrances must be added in line with IFRA's guidelines.

The guidelines of IFRA (International Fragrance Association) can be found at www.ifraorg.org/

b) Fragrances must not be present in professional* spray/foam cleaning products or their refills.

c) Fragrances must not be present in wash polish/wash-and-wax care products for floors.

d) A fragrance substance which is judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration, may be present at a maximum of 0.0100% (100 ppm) in the cleaning product.

e) The fragrance substances in Table O7 may be present in products at a maximum of 0.0100% (100 ppm) per substance:

Table O7 Other fragrance substances that may be present to a maximum of 100 ppm

INCI name (if it doesn't exist, parfum name according to Cosing)	CAS nummer
Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3
Eugenia Caryophyllus Leaf / Flower oil	8000-34-8
Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6
Myroxylon Pereirae	8007-00-9;
Santalum Album	84787-70-2; 8006-87-9
Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0
Verbena absolute	8024-12-02
Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8007-80-5/84649-98-9

f) HICC, chloroatranol and atranol are not permitted in the product.

g) Sprays / foam products for consumers: Fragrances subject to declaration under Regulation (EC) No 648/2004 on Detergents as amended and/or classified as H317 and/or H334 and/or listed in Table O6 above must not exceed levels of > 50 ppm (> 0.0050%) per substance in the cleaning product.

Refills for spray products can contain each of the above-mentioned substance in concentrations of up to 0.050% by weight (500 ppm), on condition that the stated dilution gives a concentration in the diluted product of less than 0.0050% by weight (50 ppm).

** Products for professional use are defined here as products that are marketed for use in professional contexts such as institutions, catering kitchens, restaurants and within the public sector.*

Where products are sold to both professionals and consumers, the product is considered a professional product if the proportion sold to professionals is 80% or higher. Where there is any confusion about whether a product is for professionals or consumers, Nordic Ecolabelling may require documentation explaining where the product is intended to be sold. The requirement also includes fragrances in plant extracts.

☒ Appendix 2 and 3 or equivalent certification completed and signed plus fragrance specifications.

☒ Calculation of the amount of the 26 allergens, substances classified as H334 and/or H317 and substances listed in table O6 present in the end product.

O8 Preservatives

a) Preservatives included in the product or constituent substances must not be bioaccumulative. Preservatives are judged not to be bioaccumulative if BCF < 500 or logKow < 4. If both values are available, the value for the highest measured BCF is to be used, see appendix 1.

b) MI (methylisothiazolinone, CAS 2682-20-4) must not be present in the products.

c) Sensitising preservatives within the pH range 3.0–10.5 are permitted to a maximum of 100 ppm. Note that requirement O3 must also be fulfilled.

d) The concentration of the preservative must be optimised and a Challenge test or equivalent must be performed to show this.

☒ Documentation of BCF or logKow, Appendix 2 and 3 or safety data sheet for the preservative.

☒ Documentation of pH, if sensitizing preservatives are used. E.g. Safety data sheet for the product.

☒ Test report for the completed Challenge test or equivalent showing that an optimum concentration of the preservative is used in the product. See Appendix 1 concerning test laboratory requirements and for information on Challenge tests.

O9 Microorganisms

a) Products containing microorganisms to be eligible for Nordic Swan Ecolabelling are professional cleaning products (within the product group definition). See also R5 which excludes microorganisms in spray products.

b) Only microorganisms that fulfil the following requirements may be included in the cleaning product:

- The microorganisms are found in Risk group 1 in Directive 2000/54/CE.
- Microorganisms must not contain any of the following pathogen species when screened using the following or equivalent test methods:
  - E. Coli, test method ISO 16649-3:2015
  - Streptococcus (Enterococcus), test method ISO 21528-1:2004
  - Staphylococcus aureus, test method ISO 6888-1
  - Bacillus cereus, test method ISO 7932:2005 or ISO 21871:2006
  - Salmonella, test method ISO6579:2002 or ISO 19250

- The microorganisms' DNA is identified according to a "Strain identification protocol" (using the 16S ribosomal DNA sequencing or other equivalent methods).

- Are not resistant to the following types of antibiotics:
  - Aminoglycosides
  - Macrolides
  - Beta lactam
  - Tetracyclines
  - Fluoroquinolones or other quinolones

according to EUCAST or Nordic AST or other equivalent method.

- Microorganisms must not be GMO.
- Colony forming units (CFU) > 1,0 x 105 microorganisms per ml in-use solution.
- The products must on their labels/product information sheet or in other marketing material provide the user with the following information:
  - That the product contains microorganisms
  - That the products shall not be used in places were immunocompromised people are present
  - Instruction saying that the products shall not be used on surfaces in contact with food.
  - That the products shall not be used with spray application
- Products containing microorganisms shall display superior cleaning performance beyond the general cleaning requirements of R15 and R16. It must be demonstrated that the cleaning product can degrade the following:
  - Protein: degradation of proteins shown as degradation on standard casein agar medium or through other scientifically acknowledged medium displaying protein degradation.
  - Starch: degradation of starch shown as degradation on standard starch agar or through other scientifically acknowledged medium displaying starch degradation.
  - Fat and/or vegetable oil: degradation shown as degradation on ”Spirit Blue”-agar medium or through other scientifically acknowledged medium.
- Shelf-life: show that the microorganisms have a good stability by performing a stability test at room temperature showing that the microorganisms not decrease more than 20% alternatively decrease at < 1log per year according to ISO 4833-1:2014 (Horizontal method for the enumeration of microorganisms) or through other scientifically acknowledged method to count the number of microorganisms.

Analysis shall be performed by a laboratory fulfilling the requirements of Appendix 2.

Note that products containing microorganisms sold in Norway have to fulfil the national legislation ”FOR 1998-01-22 nr 93” and that they must also be listed on www.pib.no. In addition to that ”FOR 2004-06-01 nr 931” must be fulfilled when relevant.

✉ Documentation demonstrating that the microorganisms are classified as Risk Group 1.

✉ Documented DNA identification.

☒ Test results demonstrating that the microorganisms are not resistant to antibiotics, do not include the aforementioned pathogenic strains and are not GMO.

☒ Documentation of colony forming units per ml in-use solution.

☒ Performance test demonstrating that the product can degrade protein, start, fat and oil.

☒ Product label and marketing material showing that that product is designed for professional use, application method and that the above mentioned requirement regarding information on the label is present.

☒ Stability study showing shelf life according to the requirement above.

4 Ekotoxicity and biodegradability

In all calculations, the highest recommended normal dose must be used. A higher dose is often indicated for special purposes, that are not performed daily. That dosage does not need to be taken into account in calculations. The water in the toilet is never included as a part of the in-use solution.

O10 Long-term environmental effects

The use of constituent substances which are classified with any of the hazard statements H410, H411 or H412 is limited as follows:

$FV < LV$

$FV = 100*CH_{410} + 10*CH_{411} + CH_{412} \leq LV$ grams/litre in-use solution

where

FV = Factor value

LV = Limit value, see table O10

CH_{410} = concentration of substances with H410 in grams/litre in-use solution

CH_{411} = concentration of substances with H411 in grams/litre in-use solution

CH_{412} = concentration of substances with H412 in grams/litre in-use solution

The product's FV is calculated on the basis of the highest recommended normal dose stated on the packaging.

Table O10 Limit values for environmentally hazardous substances

Category	Limit value (LV) (g/l in-use solution)
Concentrated, consumer	0.20
RTU, WC, consumer	0.30
RTU, other, consumer	0.50
Concentrated, professional	0.0020
Spray, professional	0.10
RTU, other (incl. WC), professional	0.050
RTU windows, professional, consumer	0.30

Exemptions:

- Protease/Subtilisin classified as Aquatic Chronic 2 (H411) is exempt from the requirement, see also the requirement concerning enzymes in O3.
- Surfactants classified as H412 are exempted from the requirement, on condition that they are readily biodegradable* and anaerobically biodegradable**.

** In accordance with the DID list, version 2016 or later. If the substance is not on the DID list, or data on the DID list is lacking, the substance is documented in accordance with test method no. 301 A–F or no. 310 in the OECD guidelines for testing of chemicals, or other equivalent test methods.*

*** In accordance with the DID list, version 2016 or later. If the substance is not on the DID list, or data on the DID list is lacking, the substance is documented in accordance with ISO 11734, ECETOC no. 28 (June 1988) or OECD 311, where biodegradability of at least 60% is achieved in anaerobic conditions.*

If information about the substance being hazardous to the environment (in the form of data concerning toxicity and biodegradability, or toxicity and bioaccumulability) is not available, the substance is treated as a worst case, i.e. as environmentally hazardous, H410.

✉ Report on surfactants that are to be exempted from the requirement (quantity, classification, biodegradability).

✉ Summary of the product's content in % by weight of substances classified as H410, H411 and H412.

✉ Appendices 2 (product) and 3 (raw material) signed and completed, or alternatively equivalent signed information.

✉ Calculation according to the above formula showing that the requirement is fulfilled. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites.

O11 CDV – critical dilution volume

The critical dilution volume (CDV) is calculated for all constituent substances included in the cleaning product. CDV is a theoretical value that takes account of each substance's toxicity and biodegradability in the environment.

The product's critical dilution volume (CDV) is calculated on the basis of the highest recommended dose stated on the packaging.

The product's critical dilution volume (CDV) may not exceed the limit values for $CDV_{chronic}$ in table O11.

Table O11. CDV limit values

Category	$CDV_{chronic}$
Concentrated, consumer	10,500
RTU, WC, consumer	600,000
RTU, other, consumer	600,000
Concentrated, professional	9,500
Spray, professional	350,000
RTU, other (incl. WC), professional	100,000
RTU windows, professional, consumer	48,000

** Microorganisms are exempted from the CDV calculation.*

CDV is calculated using the following formula for all substances in the product:

$CDV_{chronic} = \sum CDV_i = \sum (dose_i \times DF_i \times 1000 / TF_i \text{ chronic})$

$dose_i$ = the constituent volume of each individual substance "i", in g/l in-use solution

DF_i = degradation factor for substance "i", in accordance with the DID list

TFi chronic = chronic toxicity factor for substance "i", in accordance with the DID list.

If

TF_i chronic is lacking, TF_i acute can be used.

✉ Calculation of CDVchronic for the cleaning product. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites.

Reference to the DID list, version 2016 or later. If substances are not on the DID list, or data on the DID list is lacking, the parameters must be calculated based on the guidance in part B of the DID list, and the related documentation must be submitted.

O12 Content of substances which are not aerobically and/or anaerobically biodegradable (aNBO and anNBO)

The product's total content of substances that are not aerobically biodegradable (aNBO) and that are not anaerobically biodegradable (anNBO) may not exceed the limits stated in Table O12 per litre of in-use solution.

The product's aNBO and anNBO are calculated on the basis of the highest recommended normal dose stated on the packaging.

Note that all surfactants must be aerobically and anaerobically biodegradable in accordance with O13. See also the exemption from the requirement of anaerobic biodegradability for substances which are not surfactants (Appendix 1, item 6, Anaerobic biodegradability).

Table O12: Limit values for aNBO and anNBO

Category	aNBO (g/litre in-use solution)	anNBO (g/litre in-use solution)
Concentrated, consumer*	0.10	0.10
RTU, WC, consumer	2.00	5.00
RTU, other, consumer	2.00	2.00
Concentrated, professional*	0.045	0.250
Spray, professional	0.70	0.70
RTU, other (incl. WC), professional	2.00	5.00
RTU windows, professional, consumer	0.70	0.70

**Substances in wash polish/wash-and-wax care products for floors with a molecular weight > 700, max diameter > 1.17 nm and a max molecular length > 4.3 nm are not included in the calculation. See however O6 Microplastics.*

✉ Calculation of the concentration of aNBO and anNBO for the cleaning product in grams/litre of in-use solution. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites

Reference to the DID list, 2016 or later versions. If substances are not on the DID list, or data on the DID list is lacking, the related documentation must be submitted.

O13 Surfactants – aerobically and anaerobically biodegradable

a) All surfactants must be easily biodegradable according to test method no. 301 A–F in the OECD guidelines for testing of chemicals or other equivalent testing methods.

b) All surfactants must be anaerobically biodegradable in accordance with ISO 11734, ECETOC no. 28, OECD 311 or equivalent testing methods.

✉ Reference to the DID list dated 2016 or later versions.

✉ If the DID list lacks the relevant data for surfactants, data may be taken from the safety data sheet on condition that the data is reliable and that the test methods are in agreement with Appendix 1. Section B of the DID list shows how to make the calculations of the various factors. It is also permitted to refer to analogous observations, as long as they are carried out by a competent, independent third party, and refer to relevant data from literature that has been subject to scientific scrutiny.

5 Performance

Under the requirement, a product must be at least as good as or better than the product with which it is being compared (the reference product). For professional products, the applicant can choose between conducting a laboratory test (O14) or a user test (O15). The laboratory test is the only option for consumer products (O14).

O14 Performance test – laboratory test

a) The product must, through laboratory testing, demonstrate equal or better cleaning performance, when compared with a reference product in the same product category The product must also clean better than water alone.

If the product is marketed for both professional and consumer use, it must be tested against a professional product.

The test must demonstrate the ability to remove soil, in accordance with the description in Appendix 6.

The test must be performed by a laboratory that meets the requirements concerning test laboratories in Appendix 1 (point 1B).

b) If the product is tested in accordance with the EU Ecolabel's test for all-purpose cleaners and sanitary cleaners (Commission decision of 28 June 2011 or later version), this laboratory test can be used.

✉ Alternative a: Test report containing data on dosing, selection of reference product, description of the test method, description of the soil and soil preparation, selection of surfaces, calculation of EFF (performance index) in accordance with Appendix 6. The report shall demonstrate that the product is equal to or better than the reference product and better than water.

✉ Alternative a: Documentation on the test laboratory demonstrating compliance with the requirements concerning test laboratories in Appendix 1 (point 1B).

✉ Alternative b: Description of how the EU Ecolabel test has been performed and complete results from the test.

O15 Performance test – user test

a) The product must demonstrate cleaning performance that is equal to or better than a reference product within the same product category in 80% of tests.

The performance of the product is judged on the following three parameters:

- Ability to remove soil in comparison to the reference product
- Abrasion to the cleaned surface in comparison to the reference product
- Effectiveness in comparison to the reference product

The tests must be performed by at least 5 users. All users/testers must complete Appendix 7 (a, b, c or d, depending on the product category). The applicant must then collate the results according to Appendix 7e.

b) If the product is tested in accordance with the EU Ecolabel's test for all-purpose cleaners and sanitary cleaners (Commission decision of 28 June 2011 or later version), this user test can be used.

✉ Alternative a: Description of how the test is performed, plus all fully completed questionnaires (Appendix 7a, b, c or d), plus a summary of the responses (Appendix 7e).

✉ Alternative b: Description of how the EU Ecolabel test has been performed and complete results from the test.

6 Packaging

O16 Recycling design

Plastic packaging should have a design that enables effective material recovery. This means that:

- The plastic bottle/container and closure must be made from Polyethylene (PE), Polypropylene (PP) or Polyethylene terephthalate (PET).
- PS and PVC or plastics based on other types of halogenated plastics must not be present in the closure or label.
- Black plastic materials must not be used.
- Paper labels must not be used on plastic bottles/containers.
- Metal coverings or metal seals that remain on the bottle, closure or label once the product has been opened must not be used. There is, however, an exemption for spray bottles that are sold together with refill packs.
- Plastic bottles/containers, closures and labels must be compatible with each other, in accordance with Appendix 4

✉ Packaging specifications (including bottle, labels and closures) or certificate showing the plastic used

✉ Appendix 2 declaration from the manufacturer of the hand dish wash detergent.

✉ A signed declaration of compliance with the stated material composition for the packaging, including bottle, label or shrink wrap label, the closure, filler, colourant where applicable, Appendix 5 or an equivalent declaration may be used.

✉ A calculation showing that the density measurement is not exceeded, see appendix 4.

O17 Weight-Utility Ratio (WUR)

WUR is a measure of the amount of packaging used to deliver an amount of product with a certain benefit.

The exemptions from WUR calculation are:

- Packaging made from more than 80% post consumer recycled (PCR) raw material is exempted from the requirement.
- Products that are supplied in packaging that is part of a take-back system for a product.

The calculation of WUR (grams of packaging/litre of in-use solution) is performed as follows:

$WUR = \Sigma [(2*Vi - 2.5*Ni)/(Di * ti)] \leq$ limit value in table O17

Vi = Weight of primary packaging in grams, including closure, fitted dosing devices and similar + any refills (that are sold per original bottle) in grams including closures.

Ni = Weight (g) of recycled material (postconsumer) in the packaging component (i) in grams.

Packaging is considered postconsumer recycled if the raw materials are recovered following use by consumers. If the raw material is industrial waste from the material or packaging producer's own production, the material is not considered to be recycled.

Di = No. of functional doses in the primary packaging component (i). For products that are sold pre-diluted, D = product volume (in no. of litres).

If the primary packaging is sold packaged together with a refill, D is calculated as the sum of the functional doses in both packs (just as V is the sum of the weight of both packs (see description of V)).

ti = Reuse factor. This is 1 + the number of times the packaging component (i) is reused (through the sale of refills). t = 1 if the packaging component is not reused for the same function (disposable packaging).

t > 1 may only be used if it can be documented that the packaging is reused several times for the same purpose.

Table O17 VNF limit values

Produkt type	VNF limit (grams of packaging/litre of in-use solution)
Spray products incl. foam spray products	175,0
Other RTU products	150,0
Concentrated cleaning products	1,0

✉ Declaration/documentation from the packaging manufacturer stating the type of material in the packaging components (e.g. closure (cap, spray nozzle etc.), bottle and labels). Appendix 5 can be used.

✉ Calculation of weight-utility ratio (WUR) and required documentation on reuse of the packaging component. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites.

✉ Declaration from the packaging manufacturer about the proportion of recycled material, if recovered/recycled material is used. Appendix 5 can be used.

✉ If t >1: Documentation in the form of sales statistics or similar showing how many refills are sold per original packaging.

✉ If the exemption is used:

- Documentation that shows that packaging made of more than 80% post consumer recycled (PCR) material (Appendix 5 can be used).

or

- Documentation that shows is part of a take-back system for a product.

O18 Spray products – Packaging

a) Sprays that use a propellant must not be used.

b) Spray products must have a foaming nozzle with a mesh foamer.

Alternatively, other aerosol-reducing devices (e.g. barrel foamer or aerosol-reducing formulation in the form of a viscous product) are acceptable if the amount of inhalable, thoracic and respirable aerosol is at least as low as with a mesh foamer. This must be proven in testing. The test must use the same cleaning product in the reference packaging with mesh foamer as in the alternative packaging. The chemical composition and physical properties of the test product must be equivalent to the cleaning product that is the subject of the licence application. The test must be performed by a laboratory that meets the requirements concerning test laboratories in Appendix 2 (point 1A).

✉ Documentation that propellant is not used, e.g. discription of the packaging

✉ Declaration/documentation from the manufacturer of the spray trigger, stating that it has a permanent foaming nozzle.

Alternatively

✉ Description of the aerosol-reducing device and

✉ Test report for other aerosol-reducing device compared with permanent mesh foamer, if relevant.

7 Environmental management and regulatory requirements

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

O19 Responsible person and organisation

The company shall appoint individuals who are responsible for ensuring the fulfilment of the Nordic Ecolabelling requirements, for marketing and for finance, as well as a contact person for communications with Nordic Ecolabelling.

✉ Organisational chart showing who is responsible for the above.

O20 Documentation

The licensee must archive the documentation that is sent in with the application, or in a similar way maintain information in the Nordic Ecolabelling data system.

🔑 Checked on site as necessary.

O21 Quality of the cleaning product

The licensee must guarantee that the quality of the Nordic Swan Ecolabelled product does not deteriorate during the validity period of the licence.

🔑 The claims archive is checked on site.

O22 Planned changes

Written notice must be given to Nordic Ecolabelling of planned changes in products and markets that have a bearing on Nordic Ecolabelling requirements.

✉ Procedures detailing how planned changes in products and markets are handled.

O23 Unplanned nonconformities

Unplanned nonconformities that have a bearing on Nordic Ecolabelling requirements must be reported to Nordic Ecolabelling in writing and journalled.

✉ Procedures detailing how unplanned nonconformities are handled.

O24 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled cleaning product in the production.

✉ Description of/procedures for the fulfilment of the requirement.

O25 Legislation and regulations

The licensee shall ensure compliance with all applicable local laws and provisions at all production facilities for the Nordic Swan Ecolabelled product, e.g. with regard to safety, working environment, environmental legislation and site-specific terms/permits.

✉ Duly signed application form.

🔑 The requirement is checked on site. The applicant must be able to describe on on-site inspection to which regulatory authorities they are subject to, as well as the authorities' site specific conditions and environmental concessions.

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.nordic-ecolabel.org/regulations/

Follow-up inspections

Nordic Ecolabelling may decide to check whether cleaning products fulfils Nordic Ecolabelling requirements during the licence period. This may involve a site visit, random sampling or similar test.

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

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

History of the criteria

Nordic Ecolabelling adopted version X.X of the criteria for XX on DAY MONTH YEAR. The criteria are valid until DAY MONTH YEAR.

Appendix 1 Analyses, test methods and calculations

1A Requirements on the analysis laboratory

The following stipulations apply regarding ecotoxic effects, microorganisms and Challenge tests. The analysis laboratory must be competent and impartial as specified below.

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

For Challenge tests, 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 9000.
- The test method for performance test is part of the quality system.
- Nordic Ecolabelling shall have access to all raw data from performance testing.

1B Requirements on the analysis laboratory for performance

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

The applicant’s own laboratory, and external testing institutes that do not meet EN ISO 17025 or have official GLP status, may be approved to carry out performance tests. In this case, the following conditions must be met:

- The organisation must be ISO 9001 certified.
- The test laboratory must be covered by the certification, and the performance test must be included in the quality management system.
- Nordic Ecolabelling is to be given access to all the raw data from the performance test.

The applicant’s own laboratory may be approved to carry out performance tests even if the test laboratory and the performance test are not covered by ISO 9001 certification. The following conditions must be met:

- The organisation must have a quality assurance system, and the performance test must be described in that system.
- Nordic Ecolabelling is to be given access to all the raw data from the performance test.
- The laboratory must document that the test method used is aimed at differentiating between different hand dishwashing detergents, and that the results achieved are reproducible.
- It must be possible for Nordic Ecolabelling to come and observe the performance of a test.

2 Ecotoxicological test methods

International test methods (OECD Guidelines for the Testing of Chemicals, ISBN 92-64-1222144) or similar methods must be used. If equivalent methods are used, these must be evaluated by an independent body to ensure that the test results are equivalent. The test methods to be used are specified below.

3 Aquatic toxicity

Acute aquatic toxicity is tested with the aid of test methods Nos. 201, 202 and 203 in OECD guidelines for testing of chemicals (ISBN 92-64-1222144) or equivalent test methods

For chronic aquatic toxicity test methods nos. 210*, 211, 215*and 229* in the OECD Guideline for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent test methods are used. OECD 201 can be used as chronic test if chronic endpoints are chosen.

4 Bioaccumulation

A substance is considered bioaccumulating if tested for bioaccumulation on fish according to method OECD 305 A-E and its bioconcentration factor (BCF) is >500. If no BCF value has been determined, a substance is considered bioaccumulating if its logKow value ≥ 4.0 according to method 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent method, unless proven otherwise. If the maximum measured BCF ≤ 500, the substance is not considered bioaccumulating even if logKow ≥ 4.0.

OECDs test method 107 cannot be used for surface-active substances, which are both fat and water soluble. Based on current knowledge, for such substances it must be shown to a high degree of certainty that the substance itself and its decomposition products do not pose a long-term hazard to aquatic organisms

Data models (such as BIOWIN) are permitted but if the results of an approximation are close to the set limit values or if Nordic Ecolabelling holds contradictory information, more reliable information is required.

5 Aerobic biodegradability

Test methods 301 (A to F) or 310 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) should be used to test aerobic biodegradability.

Other scientifically accepted test methods may also be used. The test results of such equivalent methods must be evaluated by an independent body.

6 Anaerobic biodegradability,

Anaerobic degradability can be tested in accordance with ISO 11734, ECETOC No 28 (June 1988), OECD 311 or some other scientifically approved method. In order for a substance to be regarded as anaerobically degradable in the ISO test, a minimum of 60% degradability under anaerobic conditions is required.

Substances that are not surfactants and are not found on the DID-list, may be exempted from the anaerobic degradability requirements if they are aerobically

degradable and not toxic to aquatic organisms (NOEC/ECx > 0.1 mg/l or LC50/EC50/IC50>10 mg/l), and if any of the following criteria are fulfilled:

- readily degradable aerobically and have low adsorption (A<25 %) or
- readily degradable aerobically and have high desorption (D>25 %) or
- readily degradable aerobically and are not potentially bioaccumulable

Adsorption/desorption is determined using method 106 in OECD Guidelines or ISO CD 18749 "Water quality – Adsorption of substances on activated sludge".mineralisation in the test (> 70 % BOD/ DOC/COD reduction) after 28 days.

7 (Potential) endocrine disruptors

A (potential) endocrine disruptor is an exogenous substance or mixture of substances that changes the function(s) of the hormonal system and thus causes serious health effects in an unaffected organism, its offspring or populations.

Nordic Ecolabelling counts all substances that in the EU are considered to be (potential) endocrine disruptors (categories 1, 2 and 3b: "Category 1 - evidence of endocrine disrupting activity in at least one species using intact animals"; "Category 2 - at least some in vitro evidence of biological activity related to endocrine disruption"). Where changes are made to the EU's list, it is the latest updated reports that apply.

The most recent reports can be obtained from http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf and an Access database in which all evaluated substances listed can be downloaded at http://ec.europa.eu/environment/chemicals/endocrine/strategy/index_en.htm.

8 DID list

The DID list is common to the European ecolabel and Nordic Ecolabelling. The list has been established in collaboration with stakeholders from industry and consumer and environmental organisations. The list contains information on the toxicity and biodegradability of substances that may be used in chemical/technical products. The DID list does not show which substances can be used in ecolabelled products.

The DID list cannot be used to document the toxicity of individual substances for classification purposes. For this purpose, MSDS, pertinent literature and information from the primary producer shall be used.

The DID list is available via the relevant national Nordic Ecolabelling website (see page 2 for addresses).

For these criteria, the DID list dated 2016 or later versions apply.

To calculated CDV in R11, a worksheet is available from Nordic Ecolabelling Web sites, see page 2 in this criteria document.

If no data for chronic toxicity are available, acute data and the associated safety factor can be used to estimate the chronic toxicity factor.

9 Challenge test

To avoid the unnecessary use of preservatives and to ensure that the quantity of preservatives is sufficient, a requirement is set regarding the quantity of preservatives in relation to the volume of the product. This is documented using a challenge test or equivalent and shall be performed during the development of the product.

Challenge test designates a group of tests used to determine the correct/necessary concentration of preservatives in products. Test samples are prepared with different concentrations of preservatives as well as a control without preservatives. A mixture of bacteria, yeasts and moulds are added to the samples which are tested for growth after seven days. This continues for a minimum of 28 days (some tests require a minimum of six weeks). The sample with the lowest concentration of preservatives that does not exhibit microbial growth has the correct/optimum concentration of preservatives. Different manufacturers and suppliers of preservatives use different challenge tests/methods to determine the correct concentration of preservative. Examples include: Koko Test (Test Method SM 021), USP Challenge Test (US Pharmacopoeia) and CTFA Challenge Test (Cosmetics Toiletries and Fragrance Association).

Appendix 2 Declaration from the producer of the cleaning product

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of cleaning products. To complete the following declaration, you will need declarations for all raw materials (Appendix 3 or equivalent declaration).

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Product name: _____

Product type / areas of use:

_____

Professional product ☐

> Products for professional use are defined here as products that are marketed for use in professional contexts such as institutions, catering kitchens, restaurants and within the public sector.
>
> Where products are sold to both professionals and consumers, the product is considered a professional product if the proportion sold to professionals is 80% or higher. Where there is any confusion about whether a product is for professionals or consumers, Nordic Ecolabelling may require documentation explaining where the product is intended to be sold.

Consumer/retail product ☐

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements

- Ingoing substances: all substances in the Nordic Swan Ecolabelled product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the Nordic Swan Ecolabelled product.
- Impurities in the raw materials exceeding concentrations of 1,0 % (≥ 0,1000 viktprocent, ≥ 1000 mg/kg) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O5: Does the product contain substances classified with any of the hazard phrases below? Incl. all classification variants. For example, H350 also covers classification H350i.				
H350 – Carc 1A or 1B	Yes	☐	No	☐
H351 – Carc 2	Yes	☐	No	☐
H340 – Muta 1A or 1B	Yes	☐	No	☐
H341 – Muta 2	Yes	☐	No	☐
H360 – Repr 1A och 1B	Yes	☐	No	☐
H361 – Repr 2	Yes	☐	No	☐
H362 – Lact.	Yes	☐	No	☐
H334 – Resp Sens. 1/1A/B	Yes	☐	No	☐
H317 – Skin Sens. 1/1A/B	Yes	☐	No	☐
O6: Does the product contain any of the following substances?				
Alkylphenolethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	☐	No	☐
EDTA (Ethylenediaminetetraacetic acid) and its salts and/or DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes	☐	No	☐
Quaternary ammonium salts that are not readily biodegradable	Yes	☐	No	☐
Organochloride compounds and hypochlorite	Yes	☐	No	☐
Methyldibromoglutaronitrile ((MG, CAS 35691-65-7)	Yes	☐	No	☐
Nitro musks and polycyclic musk compounds	Yes	☐	No	☐
Phthalates	Yes	☐	No	☐
VOC *Volatile organic compounds are defined in accordance with the European Commission's directive 1999/13/EC on the limitation of emissions of volatile organic compounds with steam pressure > 0.01 kPa at 20°C*.	Yes	☐	No	☐
If yes, state the amount (% by weight) _____				
Fluoro surfactants and othert perfluorinated and polyfluorinated substances (PCF)	Yes	☐	No	☐
BHT (butylated hydroxytoluene, cas 128-37-0) *An exception is made for BHT in perfumes in the amount of ≤100 ppm provided that the amount in the cosmetic products does not exceed 1 ppm*	Yes	☐	No	☐
D4 (oktametylcyklotetrasiloxan, CAS 556-67-2) D5 (dekametylcyklopentasiloxan, CAS 541-02-6) D6 (dodecamethylcyclohexasiloxane CAS 540-97-6)	Yes	☐	No	☐
Mikroplastics Definied as insoluble plastic particles that are < 5 mm and are not biodegradable under OECD 301 A-F)	Yes	☐	No	☐
Substances considered to be (potential) category 1 or 2 endocrine disruptors accordance with the European Union's reports concerning endocrine disruptors *The EU's reports on potential endocrine disruptors can be read in their entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf, see appendix page 238 onwards)*	Yes	☐	No	☐
Substances that have been judged in the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated but which meet these criteria.	Yes	☐	No	☐
Substances on the Candidate List (SVHC), se ECHA webpage: http://echa.europa.eu/candidate-list-table	Yes	☐	No	☐
Nanomaterials/-particles *The definition of a nanomaterial follows the European Commission's definition of nanomaterials from 18 October 2011, "A natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm." Examples include ZnO, TiO2, SiO2 and Ag. Polymer emulsions are not considered nanomaterials*	Yes	☐	No	☐

O7: Does the product contain fragrances (incl. plant extracts)?	Yes ☐ No ☐
If yes, have fragrances been added in line with IFRA guidelines? *(IFRAs (International Fragrance Association, www.ifraorg.org/)*	Yes ☐ No ☐
If yes, is the product spray/foam product?	Yes ☐ No ☐
If yes, is the product wash polish/wash-and-wax care products?	Yes ☐ No ☐
If yes, does the product contain fragrance substances that are judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration? If yes, send in perfume specifications	Yes ☐ No ☐
If yes, does the product contain following:	Yes ☐ No ☐

Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3
Eugenia Caryophyllus Leaf / Flower oil	8000-34-8
Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6
Myroxylon Pereirae	8007-00-9;
Santalum Album	84787-70-2; 8006-87-9
Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0
Verbena absolute	8024-12-02
Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8007-80-5/84649-98-9

If yes, send in perfume specifications	
If yes, does the product contain HICC, chloroatranol and atranol?	Yes ☐ No ☐
O8: Does the product contain preservatives?	Yes ☐ No ☐
If yes, state name and log Kow/BCF:_____	
If yes, does the product contain MI (methylisothiazolinone, cas 2682-20-4)?	
If yes, does the product contain sensitizing preservatives? If yes, state pH for cleaning product: _____ If yes, state the amount in ppm: _____	Yes ☐ No ☐
If yes, send in test report for the completed Challenge test or equivalent showing that an optimum concentration of the preservative is used in the product.	
O9: Does the product contain micro organisms?	Yes ☐ No ☐
O10: Does the product contain substances classified as environmentally hazardous with H410, H411 and H412?	Yes ☐ No ☐
If yes, state the amount (% by weight) per classification: _____ Note that account of the hazard to environment (acute/chronic aquatic toxicity, degradability and/or bioaccumulation) is needed. If data is not available (e.g. SDS chapter 12), the substance is assessed according to a worst case scenario (H410). Note: An exception is made for: Proteas/Subtilisin classified with H411 and Surfactants regardless of their function classified with H411 or H412 are exempted from the requirement, on condition that they are readily degradable and anaerobically degradable in line with the test methods in Appendix 1.	
O16: Are all parts of packaging compatible in regards of Appendix 5?	Yes ☐ No ☐

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg/kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

In the event of any change to the composition of the product, a new declaration of fulfilment of the requirements is to be submitted to Nordic Ecolabelling.

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:
Telephone:	Email:

Appendix 3 Declaration from the manufacturer of the raw material / ingredient

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of cleaning products.

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Name of the raw material/ingredient:

_____

Function of the raw material/ingredient:

_____

	Yes	No
May the information in this declaration be shared with applicants for the Nordic Swan Ecolabel?	☐	☐
Yes – A signed Appendix 3 regarding the particular raw material/ingredient in concern needs to be sent to Nordic Ecolabelling once and may thereafter be used for all Nordic Swan Ecolabel applications in all Nordic countries.		
No – A new signed Appendix 3 regarding the particular raw material/ingredient in concern needs to be sent to Nordic Ecolabelling in conjunction with each application for the Nordic Swan Ecolabel		

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements

- Ingoing substances: all substances in the Nordic Swan Ecolabelled product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the Nordic Swan Ecolabelled product.
- Impurities in the raw materials exceeding concentrations of 1,0 % (≥ 0,1000 viktprocent, ≥ 1000 mg/kg) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

Note that if the raw material contains impurities listed in this appendix, write the amount at the end of the appendix. The manufacturer of the Nordic Swan Ecolabeled product is responsible for calculating compliance with the requirements of the criteria.

Part 1 – General requirements (applies to all raw materials)				
O4: Does the raw material/ingredient contain substances classified with any of the hazard phrases below? Incl. all classification variants. For example, H350 also covers classification H350i.				
H350 – Carc 1A or 1B	Yes	☐	No	☐
H351 – Carc 2	Yes	☐	No	☐
H340 – Muta 1A or 1B	Yes	☐	No	☐
H341 – Muta 2	Yes	☐	No	☐
H360 – Repr 1A och 1B	Yes	☐	No	☐
H361 – Repr 2	Yes	☐	No	☐
H362 – Lact.	Yes	☐	No	☐
H334 – Resp Sens. 1/1A/B	Yes	☐	No	☐
H317 – Skin Sens. 1/1A/B	Yes	☐	No	☐
O6: Does the raw material/ingredient contains any of the following substances?				
Alkylphenolethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	☐	No	☐
EDTA (Ethylenediaminetetraacetic acid) and its salts and/or DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes	☐	No	☐
Quaternary ammonium salts that are not readily biodegradable	Yes	☐	No	☐
Organochloride compounds and hypochlorite	Yes	☐	No	☐
Methyldibromoglutaronitrile ((MG, CAS 35691-65-7)	Yes	☐	No	☐
Nitro musks and polycyclic musk compounds	Yes	☐	No	☐
Phthalates	Yes	☐	No	☐
VOC Volatile organic compounds are defined in accordance with the European Commission's directive 1999/13/EC on the limitation of emissions of volatile organic compounds with steam pressure > 0.01 kPa at 20°C.	Yes	☐	No	☐
If yes, state the amount (% by weight) _____				
Fluoro surfactants and othert perfluorinated and polyfluorinated substances (PCF)	Yes	☐	No	☐
BHT (butylated hydroxytoluene, cas 128-37-0) An exception is made for BHT in perfumes in the amount of ≤100 ppm provided that the amount in the cosmetic products does not exceed 1 ppm				
D4 (oktametylcyklotetrasiloxan, CAS 556-67-2) D5 (dekametylcyklopentasiloxan, CAS 541-02-6) D6 (dodecamethylcyclohexasiloxane CAS 540-97-6)	Yes	☐	No	☐
Mikroplastics *Definied as insoluble plastic particles that are < 5 mm and are not biodegradable under OECD 301 A-F)*	Yes	☐	No	☐
Substances considered to be (potential) category 1 or 2 endocrine disruptors accordance with the European Union's reports concerning endocrine disruptors *The EU's reports on potential endocrine disruptors can be read in their entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf, see appendix page 238 onwards)*	Yes	☐	No	☐

Substances that have been judged in the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated but which meet these criteria.	Yes	☐	No	☐
Substances on the Candidate List (SVHC), ECHA webpage: http://echa.europa.eu/candidate-list-table	Yes	☐	No	☐
Nanomaterials/-particles *The definition of a nanomaterial follows the European Commission's definition of nanomaterials from 18 October 2011, "A natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm." Examples include ZnO, TiO2, SiO2 and Ag. Polymer emulsions are not considered nanomaterials*	Yes	☐	No	☐
O7: Does the raw material/ingredient contain fragrances (incl. plant extracts)?	Yes	☐	No	☐
If yes, have fragrances been handled in line with IFRA guidelines? www.ifra.org	Yes	☐	No	☐
If yes, does the fragrance contain BHT? (see O6) If yes, state the amount (ppm or % by weight) _____				
If yes, does the fragrance contain substances that are judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration? If yes, send in perfume specifications	Yes	☐	No	☐
If yes, does the fragrance contain following:	Yes	☐	No	☐

Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3
Eugenia Caryophyllus Leaf / Flower oil	8000-34-8
Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6
Myroxylon Pereirae	8007-00-9;
Santalum Album	84787-70-2; 8006-87-9
Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0
Verbena absolute	8024-12-02
Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8007-80-5/84649-98-9

If yes, send in perfume specifications				
If yes, does the fragrance contain HICC, chloroatranol and atranol?	Yes	☐	No	☐
O8: Does the raw material/ingredient contain preservatives?	Yes	☐	No	☐
If yes, state name and log Kow/BCF:_____				
O10: Does the raw material/ingredient contain substances classified as environmentally hazardous with H410, H411 and H412?	Yes	☐	No	☐
If yes, state the amount (% by weight) per classification: _____ Note that account of the hazard to environment (acute/chronic aquatic toxicity, degradability and/or bioaccumulation) is needed. If data is not available (e.g. SDS chapter 12), the substance is assessed according to a worst case scenario (H410)				

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg/kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

	Yes	No
Are renewable raw materials used in the raw material/ingredient?	☐	☐

Part 2 - Only to be used if a raw material/ingredient contains renewable raw materials

List the renewable raw materials used (e.g. palm oil, coconut oil, rapeseed oil, beeswax) and the amount in % in yearly basis:

PLEASE ONLY ONE RENEWABLE RAW MATERIAL PER LINE

	Origin of renewable raw material in the raw material/ingredient (e.g. palm oil, coconut oil, rapeseed oil, beeswax, etc)	Amount of the renewable raw material (weight-%) in the raw material/ingredient on a yearly basis
Renewable raw material 1		
Renewable raw material 2		
Renewable raw material 3		
Renewable raw material 4		
Renewable raw material 5		
Total amount (weight-%) of renewable raw materials in the raw material/ingredient:		

For each renewable raw material in the raw material / ingredient, the following data is to be completed:

Renewable raw material 1 (E.g. palm oil or coconut oil or rapeseed oil or beeswax): _____	
Name of the supplier:	
Is the renewable raw material sustainability certified? Yes ☐ No ☐	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book&Claim	☐

Renewable raw material 2 (E.g. palm oil or coconut oil or rapeseed oil or beeswax): _____	
Name of the supplier:	
Is the renewable raw material sustainability certified? Yes ☐ No ☐	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book&Claim	☐

Renewable raw material 3 (E.g. palm oil or coconut oil or rapeseed oil or beeswax): _____	
Name of the supplier:	
Is the renewable raw material sustainability certified? Yes ☐ No ☐	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book&Claim	☐

Renewable raw material 4 (E.g. palm oil or coconut oil or rapeseed oil or beeswax): _____	
Name of the supplier:	
Is the renewable raw material sustainability certified? Yes ☐ No ☐	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book&Claim	☐

Renewable raw material 5 (E.g. palm oil or coconut oil or rapeseed oil or beeswax): _____	
Name of the supplier:	
Is the renewable raw material sustainability certified? Yes ☐ No ☐	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book&Claim	☐

In the event of any change to the composition of the product, a new declaration of fulfilment of the requirements is to be submitted to Nordic Swan Ecolabelling.

Raw material producer:	Company name/stamp:
Responsible person:	Signature of responsible person:
Telephone:	Email:
Place and date:	

Appendix 4 Compatibility requirements for bottles, cloures and labels (Appendix to O16)

This appendix contains compatibility requirements that promote the recycling of packaging of cleaning products. These compatibility requirements form part of the requirements for packaging, see requirement O16.

NOTE! Closure includes: cork / lid and mounted dosing devices / pumps.

For PET bottles, the following applies:

- Labels, shrink film labels and closures must have a density of less than 1 g / cm3.
- Labels, shrink film labels and PETG closure may not occur.

For HDPE bottles, the following applies:

- Fillers such as CaCO3 can not be included HDPE bottles and closures at a level that the density of the plastic exceeds 0.995g / cm3.
- Labels and shrink film labels and silicone closures must have a density greater than 1 g / cm3.
- OPP and PP closures must not be used.

For PP bottles, the following applies:

- Fillers such as CaCO3 can not be included HDPE bottles and closures at a level that the density of the plastic exceeds 0.995g / cm3.
- Labels and shrink film labels and silicone closures must have a density greater than 1 g / cm3.

Appendix 5 Declaration from the manufacturer of the primary packaging

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of cleaning products.

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Producer/distributor
Part of the packaging (bottle, closure, label)
Packaging material (type of plastic, cardboard etc.)

NOTE! Closure includes: cork / lid and mounted dosing devices / pumps.

Plastic packaging (includes: bottle)	**Yes**	**No**
Is the bottle black? (O16)	☐	☐
Is there metal coverings or metal seals? (O16)	☐	☐
Are fillers used? (see Appendix 5)	☐	☐
If yes, state concentration and density of the plastic: _____		
Does the bottle contain post consumer recycled material (PCR)? (O17)	☐	☐
If yes, what is the recycling percent? _____		
Paper and cardboard packaging (note, Paper labels must not be used on plastic bottles/containers.)		
Does the paper/cardboard contain post consumer recycled material (PCR)? (O17)		
If yes, what is the recycling percent? _____		
Closure (includes cork / lid and mounted dosing devices / pumps)		
Is there PS and PVC or plastics based on other types of halogenated plastics present in the closure? (O16)		
Is the closure black? (O16)	☐	☐
Is there metal parts in the closure, such as metal in spray trigger? (O16)	☐	☐
What is the density (g/cm3) of the closure? (see Appendix 5) _____		
Does the closure contain post consumer recycled material (PCR)? (O17)	☐	☐
If yes, what is the recycling percent? _____		

Labels and shrink film labels		
Is there PS and PVC or plastics based on other types of halogenated plastics present in the label? (O16)	☐	☐
Is there paper in the label? (O16)	☐	☐
Is there metal parts in the label such as metallized labels? (O16)	☐	☐
What is the density (g/cm3) of the label? (see Appendix 5) _____		
Does the label contain post consumer recycled material (PCR)? (O17)	☐	☐
If yes, what is the recycling percent? _____		

Packaging producer:

Ort och datum:	Company name/stamp:
Responsible person:	Signature of responsible person:
Telephone:	Email:

Appendix 6 Laboratory test

This appendix describes a proposal for a laboratory test. Other well-described and well-documented tests may also be used. If some other test than the test described below is used, the test must be approved in advance by Nordic Ecolabelling.

The purpose of the laboratory test is to determine whether the test product produces a result that is better than or as good as a reference product*, and that the test product does harm the surfaces that it is marketed for use on.

> ** Reference product refers to an equivalent product within the same category and designed for the same area of use. For example, a professional WC cleaner shall be tested against another professional WC cleaner and a consumer kitchen cleaner tested against a second consumer kitchen cleaner.*

Proposal for a laboratory test

The test institute must fulfil these framework requirements so that the test provides a reliable result. Questions 1 and 2 below under "requirements" shall be answered by the applicant.

Reference product
The test product and comparative reference product shall be tested in the same way. Both products shall belong to the same category (professional/consumer and RTU/concentrated) and designed for the same area of use (WC, kitchen, sanitary, all-purpose, glass, etc.). Refer to the section “What products are eligible for a Nordic Swan Ecolabel”. The reference product must be a product that is well-established/well-known in the market.

Dosage
The lowest specified dosage for normal soil of the test product and the reference product respectively shall be used for the performance test.

Water test
A water test shall be performed using the same quantity of water as in the other tests. Data from the water test shall be collated together the other test data. The test and reference product must both perform better than water alone.

Soil
The soiling used for each test must be relevant to the product’s intended area of use according to item 4 "Soil" in this Appendix.

Requirements for test laboratories
The requirements stipulated for test laboratories are presented in Appendix 1.

Requirements

1**. Dose**

The dose that must be used is the lowest recommended dose for the product and the recommended dose for the comparative product for normal soils/normal use.

✉ State the dose of the product and of the comparative product.

2. The comparative product

The reference product must be recently purchased and must be a product intended for the same area of use (kitchen, sanitary, window) and belong to the same product category (professional, consument, RTU) as the product.

✉ Answer the following:

a) How long has the comparative product been on the market?
b) What areas of application do the product and the comparative product have in common?
c) Why was this product in particular chosen as the comparative product?

The manufacturer can compare the product for which they apply the Nordic Swan Ecolabel with a self-produced product. However, the prerequisites for doing so are that the self-produced product is well-known in the market and is intended for the same area of use as the product for which the license is applied for (see above).

3. Surfaces

The surfaces on which the products are tested must be relevant to the area of use in respect of which the product is marketed. If other surfaces have been chosen must this be explained.

✉ Answer the following:

a) What type of surface was used in the test?
b) Why is this surface relevant?
c) Is the product gentle on this type of surface?

4. Soil

The soil mixture must be relevant to the product's intended area of use according to the following table 1. Products marketed for several different areas of use or other types of soil should be tested on all the major types of soil that products market with, including soil types, that may not be listed in the table (for example, protein and starch).The soil mixture must be as follows: relevant to the area of use of the product – homogenous – based on well-described and internationally available substances.

Table 1 Soil(s)

Product/Area of use	Soil(s)
Sanitary cleaner	Lime soap and limescale
WC cleaner	Limescale
All-purpose cleaner and kitchen cleaner	Fat
Wash polish/wash-and-wax care products	Fat
Window and glass cleaner	Fat (fingerprints) and particulate matter (dust and/or soot).
Oven cleaners	Burned. The dirt should contain a mixture of fats, proteins and carbohydrates.

✉ State the formula for the soil

✉ State why the composition of the soil is relevant to the area of use of the product.

5. Method of cleaning

The method of cleaning shall be relevant to the product type. The test shall be performed for the soil types specified in Table 1 that are relevant to the product's area of use.

De-scaling performance can be determined by gravimetric analysis. Fat-removing performance is determined by reflectance. The removal of particulate can be determined by gravimetric analysis or reflectance.

✉ Describe the method of cleaning and how this method is relevant.

6. Description of the test

The same number of repetitions shall be performed for the test product, reference product and water (at least 10 per product). One batch of soil that is sufficient to all tests shall be used. The soil shall be applied to at least 30 test pieces of a relevant material. Refer to item 3 “Surfaces”. Following this, the tests shall be performed using the test product, reference product and water.

The test shall be performed using a random selection of soiled test pieces, i.e. at least 10 pieces shall be chosen at random for the test product, the same number for the reference product and the same number for the water test.

The reflectance of all plates must be measured before the soil is applied, after the soil has been applied and after washing.

Reflectance can also be determined visually if it is clearly explained how this assessment is conducted in a reproducible manner.

Effectiveness, EFF, is calculated separately for each plate and recorded in a table.

✉ Describe how soiling, washing and measurement/detection were performed.

✉ Specify raw data from the weighing and values from the reflectance measurements.

7. Calculation of the wash effectiveness index (EFF)

The wash effectiveness index is calculated using the following formula:

EFF = (Rc - Rb) / (Ra - Rb)

Ra = Reflectance before soiling (i.e. on a clean plate)

Rb = Reflectance after soiling

Rc = Reflectance after washing

This is performed for each individual parallel of the product, the reference product and water.

The following must also be calculated:

EFFp = Average EFF value for the product undergoing testing

EFFs = Average EFF value for the reference product

EFFs = Average EFF value for water

Requirement level

For sanitary cleaning products, both calcium and fat-removing effects must be documented. Fat and calcium-removing effects must comply with the following requirements (7.1 a or 7.1.b)

In the case of all-purpose cleaners and cleaning products for kitchens, it will only be necessary to determine the fat-removing effect. (7.1 a or 7.1.b)

Window and glass cleaner's ability to remove grease and particulate shall fulfil one of two requirements (7.1a or 7.1b).

All product tests shall also demonstrate that the results are better than water alone, see 7.2.

7.1 a

It must be shown with a 95% unilateral confidence interval that the test product has a wash effectiveness that is greater than or equal to that of the reference product,

or

7.1 b

$EFFp \geq EFFs$

7.2. Wash effectiveness better than water

Irrespective of the method of evaluation (7.1a or 7.1b), the following shall be fulfilled:

EFFp > EFFv

☒ All raw data from all tests shall be submitted.

☒ Wash effectiveness EFF, stated to two significant figures, is calculated separately for each plate. An average is then calculated for the test product, reference product and water respectively.

☒ Calculations according to 7.1a or 7.1b demonstrating that the requirement is fulfilled.

☒ The cleaning performance of the test product in comparison to water shall be specified (7.2).

The report shall contain:

- The formulation number providing linkage to the product name and the version of the recipe that is specified in the licence application.
- The results of requirements 1-7 of this appendix, including all raw data.
- Information about the laboratory demonstrating that the laboratory fulfils the requirements of Appendix 1.

Appendix 7 User test

This appendix describes the way in which a **professional product** test is to be performed. The purpose of the test is to demonstrate whether or not the test product for which a Nordic Swan Ecolabel licence is sought is as good as or better than a comparative product. The test must also demonstrate whether the test product harms the surfaces that it is marketed for use on.

No reference product is needed for wash polish/wash-and-wax care products, See Appendix 7d for user test for wash polish/wash-and-wax care products.

Quality requirements

At least 80 % of the test persons must assess the product to be as good as or better than the reference product in order to fulfil the performance test.

Test individuals

Test individuals must be professional users* of the cleaning product. At least five professional users shall test the product. The five individuals shall be randomly chosen and shall come from five different companies/organisations/institutions.

* *Consumer products are subject to laboratory testing.*

The reference product:

The test product must be compared with the product normally used by the user. The reference product must not be the same as the test product. The test product and the reference products may be produced by the same manufacturer.

Microorganism based products are to be compared to an equivalent product without microorganisms.

Performance of the test:

The test must be performed on the type(s) of surface relevance in relation to the recommendations on the product label.

The dosage used must be the minimum dosage specified on the label for normal soil. I.e. if the normal dosage of the label is specified as an interval, the lowest quantity in this interval must be used. Likewise, the dosage of the comparative reference product must be the lowest recommended dosage for normal soil.

The duration of the test period must be sufficient for the test product to be used at least five times by the test user on the same place.

Performance questionnaire

There are four questionnaires for the user test:

- All-purpose cleaner and kitchen products (Appendix 7a)
- Sanitary cleaner (Appendix 7b)
- Window and glass cleaner (Appendix 7c)
- Wash polish/wash-and-wax care products (Appendix 7d)

Each test individual must complete all questions on the questionnaire. One questionnaire shall be completed per product.

Responses shall be tabulated, see Tables 1-3 in Appendix 7e, indicating the number of responses and number of each answer. The applicant must also document which individuals have answered the questionnaire and the percentage of answers.

It must be demonstrated that the recipe of the test product at the time of the performance test is the same as that submitted on application to Nordic Ecolabelling.

Documentation requirements

The following documentation must be submitted to Nordic Ecolabelling:

- A description of the way in which the test users were selected
- All reply forms received from the test users (please remember that all questions must be answered)
- The overall result/all replies received on the wash effectiveness of the user test specified in a table/a form (see table 1-3 in Appendix 7e)

The formulation of the test product must be attached to the overall result of the user test.

Appendix 7a Wash effectiveness – for all-purpose cleaners and kitchen products

The following questionnaire shall be answered (all questions) by each test individual.

Information about the test:

Name of test product (= the new product): _____

Dosing of test product: _____

Name of reference product (= the product that is normally used):

_____

Dosing of reference product: _____

Types of surface on which the test product is used, specify material. Specify the material, e.g. stone, tiles, linoleum, wood, painted surface or stainless steel.

□ Floors: _____

□ Tables: _____

□ Fixtures/furnishings: _____

□ Walls: _____

□ Ceilings: _____

□ Other: _____

Test period

Start date: _____ End date: _____

How many times was the test product used on the same surface during the specified test period? _____

How long have you been using the comparative product? _____

How frequently (approximately) do you use the comparative product? _____

Use

How has the product been used (floor machine, mop, etc.)? _____

_____

Where has the product been used? In which areas of use has the test been performed (kitchen, bathroom, school, office, restaurant, hotel)?

_____

_____

Which type of soil has been most problematic in this area?

_____

Assessment of the product:

On completion of the tests, the test product shall be compared to the reference product and assessed using the following table.

	Poorer	As good as	Better
How effective do you consider the test product's ability to remove soil compared to the reference product?'			
How do you consider the test product's gentleness to the cleaned surface compared to the reference product?'			
How effective do you consider the test product in comparison to the reference product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Comments: _____

_____

_____

_____

Information on the user site:

The cleaning test and the associated assessment were performed by:

Company name: _____

Address: _____

Contact person: _____

Telephone No._____

If questions regarding the test arise, Nordic Ecolabelling will first contact the producer of the cleaning product but may also contact test individuals.

Appendix 7b Wash effectiveness – for sanitary and WC cleaners

The following questionnaire shall be answered (all questions) by each test individual.

Information about the test:

Name of test product (= the new product): _____

Dosing of test product: _____

Name of reference product (= the product that is normally used): _____

_____

Dosing of reference product: _____

Types of surface on which the test product is used, specify material.

□ Wash basin: _____

□ Bathroom cabinets: _____

□ Tiles: _____

□ WC: _____

□ Floors-state type: stone, tile, terazzo, linoleum, other _____

_____

□ Other

Test period

Start date: _____ End date: _____

How many times was the test product used on the same surface during the specified test period? _____

How long have you been using the reference product? _____

How frequently (approximately) do you use the reference product? _____

Use

How has the product been used (floor machine, mop, etc.)? _____

_____

Where has the product been used? In which areas of use has the test been performed (kitchen, bathroom, school, office, restaurant, hotel)?

_____

_____

Which type of soil has been most problematic in this area?

_____

Assessment of the product:

On completion of the tests, the test product shall be compared to the reference product and assessed using the following table.

	Poorer	As good as	Better
How effective do you consider the test product's ability to remove soil compared to the reference product?'			
In the case of acid products: The ability of the test productto remove calcium deposits is:			
In the case of alkalic products: The ability of the test product to prevent calcium deposits is:			
How do you consider the test product's gentleness to the cleaned surface compared to the reference product?'			
How effective do you consider the test product in comparison to the reference product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Comments: _____

_____

_____

Information on the user site:

The cleaning test and the associated assessment were performed by:

Company name: _____

Address: _____

Further description of the site at which the cleaning test was performed:

_____

Contact person: _____

Telephone No._____

If questions regarding the test arise, Nordic Ecolabelling will first contact the producer of the cleaning product but may also contact test individuals.

Appendix 7c Wash effectiveness – for glass and window cleaners

The following questionnaire shall be answered (all questions) by each test individual.

Information about the test:

Name of test product (= the new product):_____

Dosing of test product: _____

Name of comparative product (= the product that is normally used): _____

_____

Dosing of comparative product:_____

Types of surface on which the test product is used, specify material

□ Windows

□ Mirrors

□ Other glass surfaces: _____

□ Other

Test period

Start date: _____ End date: _____

How many times was the test product used on the same surface during the specified test period? _____

How long have you been using the comparative product? _____

How frequently (approximately) do you use the comparative product? _____

Use

How has the product been used (floor machine, mop, etc.)? _____

_____

Where has the product been used? In which areas of use has the test been performed (kitchen, bathroom, school, office, restaurant, hotel)?

_____

_____

Which type of soil has been most problematic in this area?

_____

Assessment of the product:

On completion of the tests, the test product shall be compared to the reference product and assessed using the following table.

	Poorer	As good as	Better
How do you rate the test product's ability to remove dirt (mainly fine particles) compared to the control product?			
How do you rate the test product's ability to remove grease (mainly finger marks) compared to the control product?			
Does the test product leave edges on the surface to a greater extent than the control product?			
How effective do you consider the test product to be compared to the control product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Comments: _____

_____

_____

_____

Information on the user site:

The cleaning test and the associated assessment were performed by:

Company name: _____

Address: _____

Further description of the site at which the cleaning test was performed:_____

Contact person: _____

Telephone No._____

If questions regarding the test arise, Nordic Ecolabelling will first contact the producer of the cleaning product but may also contact test individuals.

Appendix 7d Wash effectiveness – for wash polish/wash-and-wax care products

The following requirements apply:

- The product must be used by at least 5 users for 3 months.
- The product must be used with satisfactory results on the types of substrate for which the maintenance product is intended.
- The traffic conditions under which the products are to be tested must correspond to normal traffic in corridors in large office buildings.

In the user test, the user allocates points for various properties, with 5 being the highest score and 1 the lowest score.

The types of floors that must be tested:

- The test must include all of the floor types for which the product is marketed. This means at least one user per floor type.

Requirements applicable to the individual parameter:

- A score of 1 must not be awarded by a user for any parameter.

Overall assessment of the product:

- A score of 3 must be given by at least 4 out of the 5 users (at least 80% of all users).
- A score of 1 must not be awarded by any of the users.

For each product, the individual parameters must be assessed separately (test parameters). In the case of non-standard products, Nordic Ecolabelling may permit the user's report to add a further point's assessment for other overall properties. The table below shall be used.

Product type	**Floor type**	**Test parameter**	**Points (1-5p, where 5 is best)**
Name of Wash polish/ wash-and-wax care product:	Types of floor for which the product is intended (to be completed by the manufacturer):	Interpretation: How is the product to apply/distribution capacity? Does the product foam on application? Odour of the product? Cleaning/maintenance with the product: Removal of traffic marks (heel marks)? Durability of the product's gloss? Slip resistance? Water resistance? Cleaning effect?	 _____ P _____ P _____ P _____ P _____ P _____ P _____ P _____ P
Overall assessment of the product (other parameters such as removal, drying time before next coat, wear resistance etc. can also be included here):			_____ P
Test period:			
Floor type/substrate:			
Are polishing machines used?			
Comments on overall assessment:			
Name of user:			

Appendix 7e Summary of results

To be completed by the applicant for a Nordic Swan Ecolabel licence.

Date: _____

Name of test product: _____

Description of the selection of test individuals: _____

_____

_____

_____

How many questionnaires were sent out? _____

How many responses were received? _____

Table for the collation of answers:

The results from the questionnaires shall be collated in the appropriate table below:

Results are given in % of the total number of responses.

Table 1 All-purpose cleaners and kitchen products

	Poorer (%)	As good as (%)	Better (%)
How effective do you consider the test product's ability to remove soil compared to the reference product?'			
How do you consider the test product's gentleness to the cleaned surface compared to the reference product?'			
How effective do you consider the test product in comparison to the reference product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Table 2 Sanitary cleaners

	Poorer (%)	As good as (%)	Better (%)
How effective do you consider the test product's ability to remove soil compared to the reference product?'			
In the case of acid products: The ability of the test product to remove calcium deposits is:			
In the case of alkalic products: In the case of alkalic products: The ability of the test product to prevent calcium deposits is:			
How do you consider the test product's gentleness to the cleaned surface compared to the reference product?'			
How effective do you consider the test product in comparison to the reference product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Table 3 Glass and window cleaners

	Poorer	As good as	Better
How do you rate the test product's ability to remove dirt (mainly fine particles) compared to the control product?			
How do you rate the test product's ability to remove grease (mainly finger marks) compared to the control product?			
Does the test product leave edges on the surface to a greater extent than the control product?			
How effective do you consider the test product to be compared to the control product?			
Products with microorganisms: How do you consider the products residual cleaning effects, ie the ability to degrade fat, starch and protein?			

Table 4 wash polish/wash-and-wax care products

	% replies with following points		
	5, 4 or 3	2	1
How is the product to apply/distribution capacity?			
Does the product foam on application?			
Odour of the product			
Cleaning/maintenance with the product: Removal of traffic marks (heel marks)			
Durability of the product's gloss?			
Slip resistance			
Water resistance			
Cleaning effect			
Overall assessment of the product (other parameters such as removal, drying time before next coat, wear resistance etc. can also be included here)			

Comments_____

_____

_____

_____

Date:
Signature:
Name in block capitals: